

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TEMPORARY NATIONAL ECONOMIC COMMITTEE

FINAL REPORT OF THE EXECUTIVE SECRETARY TO THE TEMPORARY NATIONAL ECONOMIC COMMITTEE ON THE CONCENTRATION OF ECONOMIC POWER IN THE UNITED STATES

PURSUANT TO PUBLIC RESOLUTION NO. 113 (SEVENTY-
FIFTH CONGRESS), AUTHORIZING AND DIRECTING
A SELECT COMMITTEE TO MAKE A FULL AND
COMPLETE STUDY AND INVESTIGATION
WITH RESPECT TO THE CONCENTRA-
TION OF ECONOMIC POWER IN, AND
FINANCIAL CONTROL OVER, PRO-
DUCTION AND DISTRIBUTION
OF GOODS AND SERVICES

CALIF. C.I.O. COUNCIL

NOV 20 1945

Printed for the use of the
Temporary National Economic Committee

RESEARCH DEPT.



To
Paul Pinsky,
With the regards of the author
Dwight Anderson

Wash. D.C.
Nov. 1945.

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FINAL REPORT OF THE EXECUTIVE SECRETARY TO THE TEMPORARY NATIONAL ECONOMIC COMMITTEE ON THE CONCENTRATION OF ECONOMIC POWER IN THE UNITED STATES

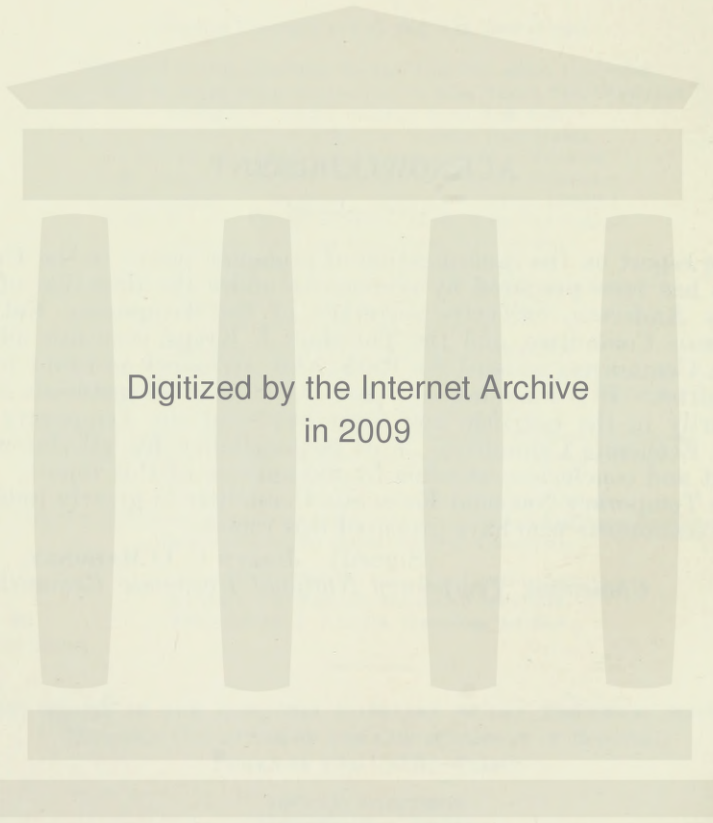
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RUTH AULL

ACKNOWLEDGMENT

This report on the concentration of economic power in the United States has been prepared by economists under the direction of Dr. Dewey Anderson, executive secretary of the Temporary National Economic Committee, and Dr. Theodore J. Kreps, economic adviser to the Committee, assisted by Ruth Aull, technical assistant to the Committee. It is intended as a partial summary of materials found primarily in the hearings and monographs of the Temporary National Economic Committee. Full responsibility for all statements of fact and conclusions is taken by the authors of this report.

The Temporary National Economic Committee is greatly indebted to the economists who have prepared this report.

(Signed) JOSEPH C. O'MAHONEY,
Chairman, Temporary National Economic Committee.



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LETTER OF TRANSMITTAL

HON. JOSEPH C. O'MAHOONEY,

*Chairman, Temporary National Economic Committee,
Washington, D. C.*

DEAR SIR: I submit herewith a final report, based on the voluminous testimony taken in the 2 years of hearings conducted by the Temporary National Economic Committee, supplemented by the studies carefully prepared by eminent economists presented in more than 40 monographs published as committee prints. It has been in preparation for over a year. Economists of recognized professional standing wrote individual chapters which were reviewed by independent critics and redrafted in the light of their suggestions. Proper acknowledgment is made at the beginning of each chapter of the contributions of these experts.

In connection with this report, it is fitting to call attention to the part played by Leon Henderson, first executive secretary of the Temporary National Economic Committee, in initiating the work of which this is a partial conclusion. His far-seeing leadership and competency as an economist have had much to do with the success of the Committee's hearings and special studies. Despite his appointments as Commissioner of the Securities and Exchange Commission and later as Commissioner of the Advisory Commission to the Council of National Defense, he continued his interest in the work of the Committee, acting as economic coordinator to the close of the Committee's activities.

Further mention must be made here of the untiring efforts and substantial contributions made by Dr. Theodore J. Kreps, professor of business economics of the Graduate School of Business, Stanford University, and Ruth Aull, technical assistant, Temporary National Economic Committee. Dr. Kreps has been the economic adviser to the Committee, in which capacity he has been largely responsible for the inception of this final report on the concentration of economic power in the United States. Ruth Aull has been in immediate charge of the manuscript, preparing it for publication. She was in continuous attendance at the hearings and wrote a daily digest of them. Her extensive knowledge of the Committee's deliberations has been drawn upon constantly in writing this report.

Ruth Aull, Dr. Kreps, and I have constituted an editorial board, exercising such broad powers in the reorganization and rewriting of chapters that their authors cannot be held responsible for any parts thereof for which they may choose to disavow authorship.

It is manifestly impossible to give due credit to all persons who have contributed to this report. Nor is it possible to fix exact obligation for inadvertent errors which have crept into the text. Since this is submitted as the executive secretary's final report authorized by the Temporary National Economic Committee, I assume final responsibility for it.

Respectfully submitted,

(Signed) DEWEY ANDERSON,
Executive Secretary.

MARCH 15, 1941.

CHAPTER I

COMPETITION AND MONOPOLY IN AMERICAN INDUSTRY¹

The line between effective competition and appreciable monopoly power is sometimes not easy to draw. Some industries are clearly competitive; some are as clearly monopolized. But there remains a middle area in which markets, seemingly competitive, may actually be subject to restraints such as the exclusion of independent concerns or efforts to control the channels of distribution. The situations which obtain here shade imperceptibly from those which are more nearly competitive to those which are more nearly monopolistic.²

There are practical difficulties, too, which obstruct any attempt to classify markets according to the criteria of competition and monopoly. Information on some industries is publicly unavailable. Conspiracy in restraint of trade, since it is in violation of the law, is usually hidden. Large establishments frequently produce a variety of products; they may enjoy a monopoly in one line and free competition in another. Products and producers are interrelated; a commodity that appears to be monopolized may actually be in competition with close substitutes; a firm that appears to face many competitors may be found, upon disclosure of the interrelationships existing within the industry, to possess appreciable monopoly power. Market situations are constantly changing; industries once competitive become less so with the development of trade organizations and the enactment of restrictive legislation; industries once monopolized become competitive with the establishment of new units and the innovations made possible by discovery and invention. The best that can be done, consequently, is to analyze the situation that appears to exist in those industries for which information is available.

COMPETITIVE MARKETS

The number of producers and the extent to which production is concentrated in the hands of a few of them do not afford a certain test of monopoly or competition, since a large number of small firms may agree upon a common course of action, while a handful of large firms may engage in vigorous competition; and a concern which

¹ This chapter is based largely on Temporary National Economic Committee Monograph No. 21, *Competition and Monopoly in American Industry*, by Dr. Clair Wilcox, professor of economics, Swarthmore College. It was digested and arranged by members of the Temporary National Economic Committee staff, following which it was criticized by Dr. Wilcox and Dr. William N. Loucks, professor of economics, Wharton School of Finance and Commerce, University of Pennsylvania.

² Competition may be said to be effective whenever it operates to afford buyers substantial protection against exploitation at the hands of sellers and to afford sellers similar protection against exploitation by buyers. Appreciable monopoly power is said to exist whenever a single seller or a number of sellers acting in unison control enough of the supply of a broadly defined commodity to enable them to augment their profit by limiting output and raising prices.

appears completely to have monopolized a product may actually be competing with numerous producers of substitutes.

The presence or absence of uniformity in price quotations cannot be taken as an index, since uniformity may either be approached when competitors attempt to meet the prices set by their rivals, or attained when conspirators agree, while disparity may be produced both when competitors undercut established prices and when conspirators rig their bids. The degree of price flexibility is not a satisfactory criterion, since competition may make its appearance in forms that are not reflected in price; custom and convenience, as well as monopoly, may induce rigidity, and monopolists may choose to alter their prices at will.

However, monopoly almost certainly exists in those industries characterized by price rigidity over a reasonably long period of time when it is accompanied by falling costs of production, declining demand, or increasing surpluses in production. Likewise, a simultaneous rise in price by various firms in an industry, where there is no evidence of any factor tending to increase the price in terms of increased cost of production, strongly indicates the presence of monopoly. Identical bids to the Government are another indication of appreciable monopoly power. Still another rather effective test of monopoly is a steady upward movement of prices in a manufacturing industry where technological efficiency has materially reduced costs. Under competition a manufacturing industry tends to lower costs steadily over a period of time if technological progress has increased. For example, the farm machinery industry is clearly revealed a monopoly by this test.

The volume of production and the extent of utilization of productive capacity are not reliable measures, since declining demand and dwindling resources may eventually necessitate curtailment of output and abandonment of capacity in fields which are competitive, while the economies of large-scale production may lead to expansion of output and full utilization of capacity in fields which are monopolized.

The rate of profit is not an adequate test, since firms that face competition may realize high profits, for a time at least, while a firm that possesses a monopoly may make low profits or suffer a loss temporarily. The turnover of producing units and the rate of business mortality are not infallible guides, since competitors sometimes enjoy long lives and monopolists sometimes go bankrupt.

Nor does a combination of several of these indexes necessarily afford an answer, since those industries that appear most competitive are the very ones in which at times the greatest efforts have been made, through private arrangements and through legislation, to bring competition under common control. The problem is further complicated by the fact that a concern may manufacture several products and sell in several markets; it may possess a monopoly over one product and face competition in the sale of another; it may enjoy a monopoly in one market and meet with competition in another. It must be noted, moreover, that any one of these conditions may be modified with the passage of time. Determination of the status of an individual trade, therefore, requires nothing less than a detailed analysis, product by product, market by market, and year by year, of output and prices, of quality, service, and terms of sale,

of costs and profits, of private agreements and public regulations, and of the effectiveness with which these are enforced.

Within those fields, however, where producers are numerous, where the degree of concentration is low, where the prices charged by different firms are not identical, where these prices are not rigidly maintained over long periods of time, where the volume of production is not drastically curtailed at the onset of depression, where productive capacity is largely utilized during each of the phases of the trade cycle, where profits are moderate, where the turnover of producing units is rapid, and where the rate of business mortality is high, there is a presumption that competition has a good chance to prevail. These conditions, in part or in full, are characteristic of many American industries. There are, however, many cases in which competition has been impaired by restraints even under the designated circumstances.

Manufactures.

In the great majority of manufacturing industries production is more highly concentrated than it is in most extractive fields. When data covering 1,807 representative products, nearly half by number and more than half by value, of those included in the Census of Manufactures for 1937 were analyzed by the Bureau of Foreign and Domestic Commerce, it was found that the largest manufacturer accounted for less than 5 percent, by value, of the total output of 20 products, for less than 10 percent of 110, and less than 25 percent of 670, and that the 4 largest accounted for less than 10 percent of 8 and less than 25 percent of 90. When goods which were not sold in Nation-wide markets and those which had a total value of less than \$10,000,000 are eliminated, there remain 48 important products in whose manufacture the degree of concentration was relatively low. If the same situation obtains with respect to goods which were not covered by the survey, this number could be doubled. The 48 products which were included in the Bureau's sample are listed in table 1.

TABLE 1.—*Products valued at more than \$10,000,000 each, in whose manufacture the four largest producers controlled less than a quarter of the total output in 1937*

Product	Number of producers	Percent produced by the 4 largest
One-piece dresses (except house dresses) made to retail for \$2 and over.....	545	3.1
Coats, women's, misses', and juniors'.....	885	7.6
Tomatoes, canned.....	787	8.9
Trousers and knickers, wholly or partly wool.....	415	9.7
Overcoats and topcoats.....	587	11.9
Suits, men's and youths' 3-piece.....	634	13.5
Suits, women's, misses', and juniors'.....	358	14.0
Wood bedroom suites.....	212	14.1
Awnings.....	365	14.5
Beans, canned green-pod.....	320	15.7
Work pants and breeches.....	304	16.3
One-piece dresses (except house dresses) made to retail under \$2.....	220	16.8
Wood davenports, sofas, daybeds, studio couches, etc., upholstered.....	561	16.9
Wood chairs and rockers, upholstered, pull-up or occasional.....	251	16.9
Wood living room and library suites, upholstered.....	523	17.0
Mattresses, other than inner-spring.....	504	18.0
Macaroni, spaghetti, and vermicelli.....	263	18.7
Ensembles (dresses).....	119	18.9
Stove and furnace pipe and flue and air ducts.....	443	18.9
Jigs, fixtures, etc. and specially designed tools.....	781	19.0

TABLE 1.—*Products valued at more than \$10,000,000 each, in whose manufacture the four largest producers controlled less than a quarter of the total output in 1937—Continued*

Product	Number of producers	Percent produced by the 4 largest
Skirts, women's, misses', and juniors'	129	19.0
Sheetings, 40 inches and narrower	93	19.1
Corsets, girdles, and garter belts	156	19.3
Pottery, including porcelain ware, electrical supplies, other types	37	19.4
Corn meal	1,256	19.5
Women's boots and shoes, cemented	175	19.8
Store and lunch room furniture: counters, tables, partitions, window backs, showcases, wall cases and cabinets	396	20.2
Noodles	329	20.7
Feed, screenings, etc	1,087	20.9
Radio coils and condensers, etc	151	21.0
Men's seamless hosiery	366	21.2
Wood dressers, vanity dressers, commodes, and dressing tables	187	21.9
Misses' and children's boots and shoes, welted	72	21.9
Women's boots and shoes, welted	150	22.0
Rough brass and bronze castings	806	22.1
Plain print cloth (36-inch and wider)	83	22.3
Men's and youths' shirts	303	22.5
Clear lacquers	200	22.5
Miscellaneous filament rayon dress goods	49	23.3
Wood window and door screens	1,100	23.4
Boots and shoes, canvas, satin, and other fabric uppers with leather soles, cemented	74	23.5
Canned corn	313	23.6
Men's and youths' 3-piece suits with extra trousers	241	23.6
Boots and shoes, part leather and part fabric uppers, with leather soles, cemented	103	23.9
Canned peas	313	24.0
Wood dining-room suites	118	24.2
Women's full-fashioned pure thread silk hosiery	129	24.4
Galvanized iron gutters, downspouts, carriers, ventilators, etc	570	24.8

Source: Willard L. Thorp and Walter F. Crowder, Temporary National Economic Committee Monograph No. 27, *The Structure of Industry, 1941*, Part V, Appendix B, pp. 420-481.

In some major divisions of manufacturing, conditions making restraints more difficult are found in varying degrees. Among these should be mentioned the manufacture of boots and shoes, leather, certain household appliances (gas-burning kitchen stoves, electrical washing machines, floor vacuum cleaners, radio receiving sets), and certain food products. Recently, competition has entered a once highly concentrated field—that of the manufacture of phonograph records.

There are several other manufacturing industries in which the presence of numerous producers, the small size of the typical establishment, the moderate degree of concentration, the relative flexibility of prices, the low level of earnings, or some combination of these factors, suggests that competitive conditions may obtain. Among them are the printing business, the production of cigars, jewelry, buttons, toys, games, and playground equipment, wooden household furniture and other wooden articles, brooms, baskets, awnings, mattresses, and other housefurnishing goods, and the manufacture of certain types of porcelain ware, hardware and other metal products, paints, varnishes, and lacquers, and paper products.

Wholesale and Retail Distribution.

Large numbers of enterprises would seem to indicate active competition in the wholesale and retail trades. In 1935 there were 1,831,000 establishments engaged in distribution, 177,000 of them in wholesaling and 1,654,000 in retailing. In many cases more than one

of these establishments was operated by the same concern, but it is estimated that there were 1,437,789 separate enterprises in these trades in 1934, among them 95,416 wholesale and 1,342,373 retail firms. Numbers are also large within the several subdivisions of the field.

There is much overlapping between these subdivisions—such retail organizations as mail-order houses, chain stores, and voluntary buying groups competing with wholesalers; distributors in one line competing with those in another; drug stores with hardware stores; hardware stores with auto supply stores; auto supply stores with variety stores; variety stores with candy stores; candy stores with food stores; food stores with tobacco stores; tobacco stores with drug stores; and mail-order houses and department stores with stores of every other type.

Wholesale markets in general are national or regional; retail markets are local, and in the latter case the number of competitors is usually large. There was one retail outlet to every 80 persons in the United States, one to every 70 persons in cities with more than 100,000 population, one to every 60 in towns and cities with 2,500 to 100,000 population, and one to every 100 in other areas in 1935. In almost every trading center there are several establishments in every line. The local merchant, moreover, must frequently compete with mail-order and house-to-house distributors and with stores in nearby towns.

Most trading establishments are comparatively small. In wholesaling only one-half of them, and in retailing less than one-sixth, take the corporate form. Among wholesalers, incorporated establishments had average sales of \$373,000 and unincorporated establishments had average sales of only \$111,000 in 1935. Among retailers, 97 percent had sales below \$100,000, 78 percent below \$20,000, and 60 percent below \$10,000. Nearly a million of them rang up less than \$33 a day, hundreds of thousands of them less than \$12 a day.

Despite the large number of trading establishments and the small size of most of them, there is substantial concentration in the field. Although corporations operate a small minority of these establishments, they make three-fifths of all sales. In wholesaling, the incorporated half of the establishments handled more than three-fourths and the unincorporated half less than one-fourth of the trade. In retailing 3 percent of the stores did more than a third of the business and 0.1 percent did more than a tenth. Chain stores made nearly one-fourth of all retail sales in 1935. There were 9 trading companies among the 250 largest corporations in the United States in that year.

Since distributive enterprises are often localized, however, their national number cannot be the ultimate test of their competitive character. Price-fixing conspiracies and obstacles to entrance are not unknown in this field.

Although mass distributors have attained great size and although they handle a substantial fraction of the retail trade, it cannot be said that they possess anything approaching a monopoly. The degree of concentration in this field does not compare with that which obtains in manufacturing. The chain stores, numbering 140,000, were operated by 6,000 different chains. Independent merchants, each with a single store, owned nine-tenths of the outlets and made two-thirds of the sales. Goods of almost every kind are sold by scores of mail-order houses, hundreds of chains, thousands of department stores, tens of thousands of independent retailers, and untold numbers of consumers'

cooperatives, supermarkets, door-to-door salesmen, and roadside stands. There is competition among distributors of the same type, among distributors of different types, and among distributors of all types and manufacturers who sell directly to consumers. New types of distributive agencies are continually springing into life—the field is in a constant state of flux.

Though mass distributors frequently participate in various restraints of trade, they have sought to obtain profits by selling in greater volume at lower prices. By integrating operations, purchasing in quantity, eliminating costly services, increasing managerial efficiency, cutting operating expenses, and reducing profit margins, they have decreased prices and increased sales. In some cases, their vigorous competition has forced the independent merchant to serve the consumer more efficiently and at less cost.

The earnings of companies engaged in trade are usually low. In 1936, for example, of the 149,805 trading corporations reporting to the Bureau of Internal Revenue, less than half had made a profit; their aggregate net income was little more than 3 percent of total sales. The other concerns had operated at a loss. In the whole group, income was little more than 2 percent of sales. Unincorporated enterprises, which are many times as numerous, may have obtained an even lower return. These figures cover limited samples which do not include the smallest firms. They apply, moreover, to a profitable year. Average earnings are probably lower than the published information would suggest. No data are available covering the rate of earnings on investment for trading enterprises as a whole. Figures for some of the larger corporations in the field reveal a satisfactory return. Most trading companies, however, earn a meager living for their owners and little or nothing more. The typical entrepreneur's average annual withdrawal from 1929 through 1937 was \$1,392.

Firms in trade have a high rate of mortality and a short expectancy of life. Among 157 wholesale companies established in Poughkeepsie, N. Y., between 1844 and 1926, two-thirds disappeared within 10 years, half within 5 years, one-third within 3 years, one-fourth within 2 years, and one-fifth within 12 months. Among 4,998 retail enterprises set up during the same period, three-fourths disappeared within 10 years, two-thirds within 5 years, half within 3 years, two-fifths within 2 years, and more than one-fourth within 12 months. Other studies corroborate these findings.

Service Trades.

More than a million enterprisers are engaged in the business of rendering nonprofessional services. Included in this group in 1935 were operators of eating places, barber shops, drinking places, automobile garages and repair shops, beauty parlors, cleaning and dyeing establishments, shoe repair shops, shoe shining parlors, hat cleaning establishments, taxicab operators, hotels, laundries, blacksmith shops, watch, clock, and jewelry repair shops, printing shops, automobile storage garages and parking lots, tourist camps, photographic studios, news dealers, grist-mills, radio repair shops, upholstery and furniture repair shops, billiard and pool and bowling alleys, and other thousands of establishments in scores of other trades.

Competition within each of these fields is confined to local markets and the number of competitors is usually large. The typical local service enterprise is small. Among all the enterprises listed by the census as service establishments, three-fourths took in less than \$3,000, and more than a third took in less than \$1,000. On the average, one or two persons are employed as hired hands. In the majority of cases such enterprises are operated by proprietors or partners and by members of the family. Aside from such organizations as the motion picture houses and restaurant chains, there has been little concentration in the field.

Earnings are even lower and the expectancy of life is even shorter in local service than in retail trade. Typical annual withdrawals of entrepreneurs are around \$1,000. High percentages of these establishments last less than 10 years; very substantial percentages last less than 5 years; from a fifth to a third last less than 1 year. Though many service trades are highly competitive, collusion and agreement are not unknown. In fact, it is in the service trades that outright rackets have flourished in some large cities.

MARKETS IN WHICH ONE OR TWO FIRMS CONTROL NINE-TENTHS OR MORE OF THE SUPPLY

Industrial monopoly is no stranger to the American scene. Ever since the Civil War, business leaders have repeatedly contrived to eliminate competition, both by getting independent concerns to agree, secretly or formally, that they would no longer compete and by bringing former competitors under common ownership and control. It is true that most of these combinations failed to achieve anything approaching complete monopoly power, that a majority of them were short-lived, and many ended in financial disaster. But there were, in 1904, 26 trusts which controlled 80 percent or more of the production in their respective fields.

Of the eight great corporations that almost completely monopolized their respective industries near the turn of the century³ only one, the United Shoe Machinery Corporation, now retains its former degree of monopoly power. Prosecution under the antitrust laws and the establishment of competing enterprises have compelled the others to relinquish exclusive control.

These early trusts and their successor companies no longer enjoy exclusive occupancy of their respective fields. But the almost complete monopolization of a market by a single firm is by no means a thing of the past. Today one company in each field controls all, or nearly all, of the Nation's supply of aluminum, nickel, molybdenum, magnesium, shoe machinery, glass container machinery, and scientific precision glass, provides nearly all of the domestic telephone service and all of the trans-oceanic service, and operates all of the sleeping and parlor cars. Other concerns stand in a similar position with respect to important segments of the markets for international cable and radio communication, oil pipe line, and railway freight transportation and trans-oceanic aviation. There are, in addition, numerous public utility corporations and innumerable small-town en-

³ The American Can Co., the American Sugar Refining Co., the American Tobacco Co., the Corn Products Refining Co., the International Harvester Co., the National Cash Register Co., the Standard Oil Co., and the United Shoe Machinery Co.

terprises which enjoy complete monopolies in the local markets which they serve.⁴

The dominant firms in these industries are indicated below:

<i>Industry</i>	<i>Dominant firm or firms</i>
Aluminum-----	Aluminum Co. of America.
Shoe machinery-----	United Shoe Machinery Co.
Glass container machinery-----	Hartford-Empire Co.
Optical glass-----	Bausch & Lomb Optical Co.
Nickel-----	International Nickel Co. of Canada.
Molybdenum-----	Climax Molybdenum Co.
Magnesium-----	Dow Chemical Co.
Magnesium alloys-----	Magnesium Development Co.
Telephone service-----	American Telephone & Telegraph Co.
International communications:	
Trans-Pacific communications-----	Commercial Pacific Cable Co.
Point-to-point radio telegraphy to 20 countries-----	RCA Communications, Inc.
Radio-telephony-----	American Telephone & Telegraph Co.
Pullman cars-----	Pullman Co., Inc.
Trans-oceanic aviation (trans-Atlantic, trans-Pacific, Caribbean)-----	Pan-American Airways.
Beryllium-----	The Beryllium Corporation.

Pairs of Firms Approaching Duopoly⁵ in the American Market.

In some fields two establishments together control the supply. Two companies provide all of the domestic telegraph service; two control all of the submarine cables between the United States and several foreign countries; two offer the only radio-telegraph service to many points abroad. Two companies, in each field, account for all, or nearly all, of the Nation's supply of bananas, of plate glass and safety glass, of bulbs, tubing and rod, and bases for electric lamps, of electric accounting machines, of railroad air brakes, of oxyacetylene, of sulphur, and certain chemicals. In many local markets, on a smaller scale, two petty enterprises share a trade.⁶ Under circumstances such as these, formal or informal understandings governing price and production are readily attained. Each firm of a pair controlling the whole supply is likely to act as if it were a monopolist. In their effect upon the market, duopoly and monopoly tend to be substantially the same. The dominating pairs of firms are shown below for certain industries:

<i>Industry</i>	<i>Pairs of firms</i>
Domestic telegraph service-----	Western Union Telegraph Co. Postal Telegraph, Inc.
International cable communications-----	International Telephone & Telegraph System
Bananas-----	Western Union Telegraph Co. United Fruit Co.
Electric accounting machines-----	Standard Fruit & Steamship Co. International Business Machines Corporation
Plate glass-----	Remington-Rand, Inc. Pittsburgh Plate Glass Co. Libbey-Owens-Ford Glass Co.

⁴ A detailed statement concerning each of these illustrations is made in Temporary National Economic Committee Monograph No. 21, ch. III.

⁵ Cases in which two sellers, instead of one, control the entire supply of a broadly defined commodity, or enough of it to enable them to augment their profits by limiting output and raising price. Here the existence of a second seller affords every buyer an alternative source of supply. But it is unlikely to afford him any real alternative in quality, service, price, or terms of sale.

⁶ For descriptions of these cases, see Temporary National Economic Committee Monograph No. 21, ch. III.

<i>Industry</i>	<i>Pairs of firms</i>
Electric lamps, ⁷ large glass bulbs, glass tubing and rod. Metal bases-----	General Electric Co. Corning Glass Works General Electric Co. Westinghouse Electric & Manufacturing Co.
Air brakes-----	Westinghouse Air Brake Co. New York Air Brake Co.
Oxyacetylene-----	Union Carbide & Carbon Corporation Air Reduction Co.
Sulphur-----	Texas Gulf Sulphur Co. Freeport Sulphur Co.

In addition to the cases mentioned above, there are still other markets in which one or two concerns turn out all or almost all of the supply. Ninety-five percent of the heat-resisting glassware produced in the United States is manufactured and distributed by the Corning Glass Works. Natural gas is delivered to many consuming areas by a single pipe-line system. The rates and services of pipe lines in intrastate commerce have long been regulated by State utilities commissions, but those of lines in interstate commerce were not subject to effective control until they were brought within the jurisdiction of the Federal Power Commission by the Federal Natural Gas Act of 1938. About 50 percent of the American supply of borates, used in the production of borax and boric acid, has been provided since 1921 by the Pacific Coast Borax Co., an American affiliate of Borax Consolidated, Ltd., of Great Britain, another 40 percent by the American Potash & Chemical Corporation. All of the sodium nitrate sold in the United States in recent years has been supplied by the Chilean Nitrate Sales Corporation and the Barrett Co., a subsidiary of the Allied Chemical & Dye Corporation. The United States Tariff Commission, in a report covering some 2,250 synthetic organic chemicals in 1938, listed only one producer for nearly 1,200 of these items and only two for more than 350.

The total number of cases in which one or two firms control nine-tenths or more of the supply of a good or service in a Nation-wide market, while undoubtedly larger than that revealed by the preceding description of specific industries and products, is unknown. The most reliable source of information on concentration of production in manufacturing industries, the biennial Census of Manufactures, gives no data on this subject. The census reports do not usually show any degree of concentration beyond the portion of an industry's output controlled by its four largest producers. In some cases even this information is withheld, since its disclosure might reveal the share controlled by specific firms. The Bureau of the Census does not publish the concentration index for an industry or a product if its largest producer controls 75 percent or more, or if its two largest producers control 90 percent or more of its output, or if the share of the output which is not controlled by the four largest producers is similarly concentrated in the hands of one or two concerns.

⁷ The electric lamp industry presents a complex picture of duopoly, monopoly, and control by a single firm. See Temporary National Economic Committee Monograph No. 21, pp. 104-106.

Among the 275 industrial categories listed in the Census of Manufactures for 1935 there were 9 for which concentration data were withheld. These were billiard and pool tables, bowling alleys, etc.; china firing and decorating not done in potteries; copper smelting and refining; essential oils; fuel briquettes; lead smelting and refining; locomotives, other than electric; tin and other foils, not including gold foil; and typewriters and parts. Likewise, in a group of 1,807 products, nearly half of those covered by the census for 1937, there were 328 for which data were withheld. In these cases, of course, production is highly concentrated and it is possible that one or two firms manufacture nine-tenths or more of the output of some of these industries or control nine-tenths or more of the supply of several of these products.

There is little or no information available on the prevalence of situations approaching complete monopoly or duopoly in regional or local markets. The figures published by the census, showing only the share of the total national output of an industry that is controlled by its four largest firms, may conceal a far higher degree of concentration within the several markets in which its products are actually sold.

MARKETS IN WHICH A FEW FIRMS CONTROL ALL OR A MAJOR PART OF THE SUPPLY

In each of the cases discussed in the preceding section one or two corporations control nine-tenths or more of the supply of an important good or service in an American market. Such cases are comparatively rare, but they are not the only ones in which large establishments may dominate a trade. In some industries a single firm, producing much less than nine-tenths of the total output, so far surpasses its rivals in resources and sales as to govern the market. In others small numbers of enterprises, roughly comparable in size, each of them overtopping their smaller competitors, together command the field.

Concentration of Production.

Among 1,807 products, representing nearly half, by number, and more than half, by value, of those included in the Census of Manufactures for 1937, there were 291, or more than one-sixth of those in the sample, in which the leading producer accounted for 50 to 75 percent of the total supply. Products of which one, two, or three companies produced a major fraction of the output between 1930 and 1940 or in some recent year appear in table 2. The percentage in each case is indicated.

TABLE 2.—*Products in which 1, 2, or 3 companies produced the percentage indicated*

1 company ¹		2 companies ¹		3 companies ²	
Product	Per-cent	Product	Per-cent	Product	Per-cent
Fire extinguishing apparatus and supplies.....	85	Synthetic nitrogen.....	89	Snuff.....	97
Still film for amateurs.....	85	Locomotives.....	80	Household cotton thread.....	90
Cinema positive film.....	75	Milk bottles.....	70	Tin cans.....	90
Canned soup.....	66	Tire cord fabric.....	64	Gypsum board.....	87
Cinema negative film.....	65	Farm machinery.....	63	Automobiles.....	86
Fruit jars.....	60	Ophthalmic lenses.....	63	Cotton gauze, band-ages, adhesives, sponges, pads, etc.....	85
Towels.....	50	Biscuits and crackers.....	56	Fruit jars.....	85
Farm machinery.....	41	Glass containers.....	52	Cigarettes.....	80
Corn products.....	40	Copper.....	51	Calcined gypsum.....	79
Industrial alcohol.....	40	Beef products.....	47	Copper.....	78
				Ophthalmic lenses, frames, and mountings.....	75
				Window glass.....	75
				Biscuits and crackers.....	74
				Farm combines.....	73
				Cast iron enamel ware and vitreous china ware.....	70
				Lead.....	68
				Chemicals.....	66

¹ Between 1930 and 1940.² In some recent year.

Source: TNEC Monograph No. 21, Competition and Monopoly in American Industry, 1941, pp. 113-115.

In 1935, four companies in each field mined 42 percent of the zinc, 63 percent of the asphalt, 64 percent of the iron ore, 78 percent of the copper, 80 percent of the gypsum, and 84 percent of the marble. In the same year, four companies accounted for 66 percent of the slaughter of meat animals, killed 52 percent of the hogs, 67 percent of the cattle, 71 percent of the calves, and 85 percent of the sheep, lambs, and goats, and sold 43 percent of the pork, 52 percent of the lard, 58 percent of the beef, 59 percent of the cured pork, and 70 percent of the veal.

Among the 275 categories included in the Census of Manufactures for 1935, there were 54 in which the 4 largest firms produced more than two-thirds, by value, of the total supply. These industries are listed in table 3.

TABLE 3.—*Industries in which the 4 largest firms produced more than two-thirds, by value, of the total output in 1935*

Industry	Percent produced by the 4 largest	Percent produced by the 8 largest
Typewriters and parts.....	(1)	99.3
Oils, essential.....	(1)	98.3
Chewing gum.....	92.0	97.3
Ammunition and related products.....	91.7	100.0
Cigarettes.....	89.7	99.4
China firing and decorating, not done in potteries.....	(1)	89.3
Combs and hairpins, other than metal and rubber.....	88.1	98.4
Linseed oil, cake and meal.....	87.9	97.2
Drug grinding.....	87.8	96.7
Motor vehicles, except motorcycles.....	87.2	94.2

Footnote at end of table.

TABLE 3.—*Industries in which the 4 largest firms produced more than two-thirds, by value, of the total output in 1935—Continued*

Industry	Percent produced by the 4 largest	Percent produced by the 8 largest
Graphite, ground and refined.....		
Files.....	86.4	100.0
Bluing.....	85.8	94.9
Safes and vaults.....	85.1	100.0
Writing ink.....	84.8	97.5
Explosives.....	83.0	93.6
Firearms.....	82.0	93.1
Rubber boots and shoes.....	81.9	92.4
Linoleum.....	81.8	100.0
Bone black, carbon black, and lamp black.....	81.6	100.0
Rubber tires and inner tubes.....	81.0	92.1
Tin cans and other tinware.....	80.9	90.4
Corn sirup, corn sugar, corn oil, and starch.....	80.8	85.6
Compressed and liquefied gases.....	79.2	95.0
Oleomargarine, not made in meat-packing establishments.....	79.2	87.0
Sewing machines and attachments.....	79.1	96.0
Photographic apparatus and materials and projection apparatus.....	78.9	90.4
Chemical fire extinguishers.....	77.9	84.9
Cork products.....	77.1	87.3
Gypsum products.....	76.9	90.2
Aluminum products.....	76.1	86.4
Gold leaf and foil.....	76.0	83.7
Rayon and allied products.....	75.5	87.4
Soda fountains and accessories.....	74.3	90.2
Soap.....	74.0	80.4
Agricultural implements.....	73.5	83.1
Electric and steam railroad cars.....	72.4	87.7
Fountain and stylographic pens; gold, steel, and brass pen points.....	71.7	84.0
Matches.....	70.4	82.8
Cane-sugar refining.....	70.3	91.3
Motor vehicle bodies and parts.....	69.6	88.3
Shortenings, vegetable cooking oils, and salad oils.....	69.4	76.8
Beet sugar.....	69.0	85.9
Cereal preparations.....	68.8	89.4
Chocolate and cocoa products, except confectionery.....	68.1	82.2
Abrasive wheels, stones, paper, cloth, and related products.....	67.8	77.5
Surgical and orthopedic appliances and related products.....	67.4	74.3
Excisior.....	67.3	75.1
Billiard and pool tables, bowling alleys, etc.....	67.0	76.4
Fuel briquettes.....	(1)	(1)
Locomotives, other than electric.....	(1)	(1)
Copper smelting and refining.....	(1)	(1)
Lead smelting and refining.....	(1)	(1)
Tin and other foils, except gold foil.....	(1)	(1)

¹ Information withheld in order to avoid the approximate disclosure of data for individual enterprises. The figure cannot be lower than 65 and is probably much higher. In the case of typewriters, for instance, it is said that the 4 largest companies produce between 95 and 98 percent of the new machines. Cf. *U. S. v. Underwood Elliott Fisher Co. et al.*, District Court of the United States, Southern District of New York, Indictment, July 28, 1939, p. 7.

Source: National Resources Committee, *The Structure of the American Economy*, Part I, pp. 248-258, 262.

Among the products in the Bureau's sample there were 164, or 9 percent of the total, in which the share manufactured by the 4 largest firms was over 90 percent and 328 others, or 18 percent, in which this share was not disclosed. Thus it appears that somewhere between one-tenth and one-fourth of the products covered by the census are made in fields where 4 concerns controlled nine-tenths or more of the supply. There were 670 products, over 37 percent of those in the sample, in which the 4 leading companies were reported as producing more than 75 percent of the output or in which information was withheld because 1 firm produced more than 75 percent or 2 more than 90 percent, and there were 175 others, nearly 10 percent of those in the group, for which data were withheld in order to avoid disclosure of the share produced by the fifth and successive firms. It thus appears that two-fifths to one-half of the goods covered by the census

are made in fields where 4 concerns controlled three-fourths or more of the supply. When products with an annual output valued at less than \$10,000,000 are eliminated, there remain 121 products, valued at more than \$10,000,000, in which it is certain that more than 75 percent, by value, of the total output was manufactured by 4 firms. These goods are listed in table 4.

TABLE 4.—*Products valued at more than \$10,000,000 each in whose manufacture the four largest producers controlled more than three-fourths of the total output in 1937*

Product	Number of producers	Percent produced by the 4 largest
Inlaid linoleum	4	100.0
Watt-hour meters, alternating current	4	100.0
Snuff	11	99.2
Refrigerator cabinets, domestic	11	98.6
Asbestos shingles	8	97.4
Machine-finished paper containing ground wood	11	96.4
Coal tar products; crudes	14	95.6
Refrigerating systems, complete without cabinets	15	95.4
Power transformers; 501 kw. and over	14	95.0
Lithopone	10	94.6
Hydrocarbon; acetylene	23	92.7
Tractors; "all purpose," wheel type, belt horsepower under 30, steel tires	10	92.0
Plug chewing tobacco	18	91.7
Oxygen	26	91.4
Typewriters; standard	8	91.2
Radio receiving tubes for replacement, alternating current, glass and metal	12	91.2
White lead in oil, pure	105	90.6
Tractors; "all purpose," wheel type, belt horsepower 30 and over, rubber tires	11	90.6
Aluminum ware, cast	17	90.5
Copper plates and sheets	17	90.5
Passenger cars and chassis	15	90.4
Corn starch	10	89.2
Milk bottles	12	89.0
Metal working files and rasps	14	89.2
Tin cans, vent-hole top	8	88.8
Cultivators; 2, 3, and 4, 5, and 6 tractor drawn or mounted	14	88.6
Aluminum ware, stamped	25	87.8
Distributor transformers, ½ to 500 kilowatts	24	87.8
Zinc oxides, Chinese white and zinc white	18	87.3
Scrap chewing tobacco	64	87.3
Steam turbines, other than marine	9	87.0
Carburetor engines, motor vehicle, other types	16	86.0
Steel strips and flats, hot rolled for cold rolling	14	86.0
Tractors; other than "all purpose," 30 and over, steel and rubber tires	11	85.4
Window glass	9	85.0
Cigarettes	32	84.8
Gypsum, neat plaster	23	84.7
Nickel alloys, plates, and sheets	13	84.3
A. C. synchronous timing motors, 1/20 horsepower and over, under 1 horsepower capacitor type	26	84.1
Steel, rolled blooms and billets for forging	15	83.8
Adding machines	9	83.1
Rubber arctics and gaiters	12	82.9
Refined sugar, soft or brown	12	82.6
Steel, skelp	10	82.2
Rubber-soled canvas shoes	11	82.1
Wallboard except gypsum, rigid, cellular fiber	15	82.1
Aluminum ingots	24	81.7
Matches, strike anywhere	9	81.5
Wire and cable, paper insulated	12	81.3
Cotton woven chambrays and chevots	19	81.0
Rubbers and footholds	16	80.7
Machine-made tumblers, goblets, and barware	8	80.0
Batteries, dry, other than 6 inch, 1½ volt	14	80.0
Rayon yarns by denier; 100 (88-112)	13	79.4
Motors, direct current, 1 horsepower to 200 horsepower	40	79.4
Partially refined oil sold for rerunning	36	79.2
Combines, harvester-thrasher, 6 foot cut and wider	12	79.1
Steel, plates, universal	14	79.0
Brass and bronze tubing and pipe, seamless	18	78.9
Heating and cooking apparatus, kerosene	12	78.8
Truck and bus tires	25	78.8
Coal tar resins derived from phenol, and/or cresol	19	78.7
Rayon yarns by denier, 300 (250-374)	15	78.4
Radio receiving sets, beyond standard broadcast, socket power, \$45 to \$65	24	78.0
Turkish and terry-woven towels	26	77.7

TABLE 4.—*Products valued at more than \$10,000,000 each in whose manufacture the four largest producers controlled more than three-fourths of the total output in 1937—Continued*

Product	Number of producers	Percent produced by the 4 largest
Smoking tobacco	119	77.5
Tobacco and cheese cloth	21	77.2
Machine-glazed Kraft wrapping paper, other	23	76.9
Domestic refrigerators, 6 foot under 10 foot	25	76.8
Canned meats	21	76.5
Passenger car tires	26	76.5
Steel, semifinished rolled blooms, billets, and slag	37	76.5
Narrow-neck packers' ware	25	76.5
Steel; black for trimming	12	76.3
Granulated sugar	21	76.0
Woolen woven goods, other	24	75.8
A. C. synchronous timing motors; 1/20 horsepower and over, under 1 horsepower, split phase	29	75.6
Passenger car, truck, and bus inner tubes	26	75.5
Commercial cars, trucks, and busses	82	75.3
Thermostats	54	75.3
Steel rails	5	75.1
Car and locomotive wheels, rolled and forged	5	(1)
Lead oxides; litharge	5	(1)
Beer cans	5	(1)
Corn and other sirups	5	(1)
Axles, rolled and forged	6	(1)
Corn sugar	6	(1)
Oxides, other	7	(1)
Steel; pierced billets, rounds, and blanks for seamless pipes and tubes	8	(1)
Electric household ranges, 2½ kilowatts or over	8	(1)
Steel; sheet and tin plate	9	(1)
Ignition cable sets or wire assemblies for internal combustion engines	9	(1)
Stainless steel plates and sheets	10	(1)
Films, except X-ray	10	(1)
Sensitized photographic paper	11	(1)
Paper; ground wood, printing	11	(1)
Beer bottles	11	(1)
Lighting glassware, including electric light bulbs	12	(1)
Cameras, including motion picture	13	(1)
Packing rings, electrodes; miscellaneous graphite and metal graphited specialties	13	(1)
Ferro-alloys, electric furnaces	14	(1)
Steel; heavy web, 3-inch and over	14	(1)
Carburetor engines, motor vehicle, industrial stationary	16	(1)
Wool, meat-packing	18	(1)
Flat glass, other	18	(1)
Sanitary cans, including condensed milk cans	18	(1)
Carburetor engines, aircraft	19	(1)
Wallboard, except gypsum	25	(1)
Cash registers, etc.	27	(1)
Storage batteries, other	28	(1)
Spark plugs	30	(1)
Power switch-boards and parts	31	(1)
Telephone and telegraph apparatus	31	(1)
Men's work shoes, wood or metal fastened	33	(1)
Canned soups	44	(1)
Aluminum products, other	61	(1)
Motor vehicle hardware, including locks	62	(1)
Sheet metal; culverts, flumes, irrigation pipe, etc.	105	(1)
Metal davenport, sofas, day beds, studio couches, etc., upholstered	146	(1)
Mattresses, innerspring	525	(1)
Cartridges	(2)	(1)

¹ Information withheld in order to avoid the approximate disclosure of data for individual enterprises.

² Data not available.

Source: Temporary National Economic Committee Monograph No. 27, *The Structure of Industry*, Part V, Appendix B, pp. 420-481.

Among the 1,807 products in the sample for 1937, there were 382 in which 5 to 10 concerns accounted for the whole supply. Eight companies, in recent years, have produced and distributed 80 to 90 percent of the feature films, and produced, distributed, and exhibited 65 percent of all the motion pictures shown in the United States.⁸

⁸ For a discussion of the industry, see Temporary National Economic Committee Monograph No. 43, *The Motion Picture Industry—A Pattern of Control*, by Daniel Bertrand, W. Duane Evans, and E. L. Blanchard.

Nine companies have manufactured all the liquid chlorine made for industrial and commercial use. Ten companies have supplied the entire domestic output of viscose rayon yarn.

In the cement industry, where 75 companies operated 162 mills in 1938, the 5 largest produced nearly 40 percent of the total output, the next 6 produced 16 percent, and none of the others provided as much as 2 percent.

In the oil industry, between 1936 and 1938, 14 companies, among several thousand, owned 89 percent of the mileage of crude oil trunk pipe lines; 15 companies owned 87 percent of the dead-weight tonnage of oil tankers; 16 owned 96 percent of the mileage of gasoline pipe lines; 18 made 80 percent of the domestic sales of gasoline; and 20 produced 52 percent of the crude, owned 57 percent of the mileage of gathering lines, 75 percent of the daily crude capacity, and 85 percent of the daily cracking capacity, made more than 82 percent of the runs to stills, produced nearly 84 percent of the gasoline, and held 90 percent of the stocks of gasoline, 93 percent of the stocks of lubricants, and more than 96 percent of the stocks of refinable crude.⁹

An even higher degree of concentration obtains within the regional markets where the major companies refine and sell their gasoline. There is no market within which all 20 of these companies compete; in 16 States there are fewer than 10 of them. The leading firm sells more than 20 percent of the gasoline consumed in each of 30 States, more than 25 percent in 15, more than 30 percent in 5, 40 percent in Wyoming, and 60 percent in Utah.

In the production of steel, also, a few large firms are dominant. Integrated enterprises possess about 90 percent of the Nation's pig iron capacity, 90 percent of the steel ingot capacity, and 85 percent of the capacity for hot rolled steel. Ten companies owned 88 percent of the industry's assets in 1937; four companies owned more than 66 percent; 2 companies owned 55 percent. The United States Steel Corporation, with 40 percent, was two and a half times as large as its closest rival, the Bethlehem Steel Corporation, and Bethlehem was nearly twice as large as the third concern, the Republic Steel Corporation, which, in turn, had assets exceeding the aggregate investment of all but 6 of the remaining firms. Productive capacity, in the case of the most important steel products, is similarly concentrated.¹⁰

United States Steel is the giant of the industry. Its manufacturing capacity is "approximately that of all German producers combined. It is almost twice that of the entire British steel industry and more than twice that of all the French mills combined."¹¹ By virtue of its tremendous size and its high degree of integration, the corporation is in a position to dominate the field.

The production of drugs, medicines, soaps, cosmetics, and toilet preparations is characterized in general by substantial concentration, rigid prices, and high profits. The 4 leading producers in each case accounted for more than three-fourths by value of the output of 21 among 41 drugs and medicines in 1937, for nearly three-fourths of the total output of soap, and for more than one-fourth of the

⁹ See Temporary National Economic Committee Monograph No. 39, *Control of the Petroleum Industry by Major Oil Companies*, by Roy C. Cook.

¹⁰ See Temporary National Economic Committee Monograph No. 41, *Price Discrimination in Steel*, by John M. Blair and Arthur Reeside.

¹¹ Hearings before the Temporary National Economic Committee, Part 18, *Iron and Steel Industry*, Iron Ore, Appendix 1349, p. 10410.

total output of perfumes, cosmetics, and toilet preparations in 1935, the degree of concentration in the latter case undoubtedly being higher where individual products are concerned. Aside from those drugs and medicines which are sold upon prescription by physicians, such goods are usually branded and nationally advertised and their resale prices are maintained. The rate of return in this field has long been higher than that usually obtained under active competition; 14 of the larger producers of drugs and medicines made an average net profit on tangible net worth of 28.53 percent in 1937 and 25.77 percent in 1938; 9 manufacturers of soaps and toilet preparations made 9.83 percent in 1937 and 16.29 percent in 1938. But if these trades present any barrier to the admission of new firms, it is to be found less in the cost of the equipment or the complexity of the processes employed in the manufacture of their products than in the size of the expenditures that are made in advertising the labels which they bear. The situation in this field is to be attributed primarily to the fact that the consumer lacks knowledge concerning the qualities of such products, is unable to make comparisons, and is reluctant to substitute one brand for another in response to differences in price. If it were not for this fact, the field might be effectively competitive.

Situations similar to those described above obtain in certain local markets where one or a few establishments control a trade. There is a high degree of concentration, for example, in the sale of common brick in New York, Philadelphia, Washington, San Francisco, and Los Angeles, and in the sale of doors, frames, sash, and other planing mill products in Chicago, Milwaukee, Kansas City, Seattle, Tacoma, San Francisco, and Los Angeles.

Among 12,000 towns and cities in the United States in 1936, half of the bankers faced no competition in their communities, a quarter of them had only one competitor, and only 5 percent of them had five or more.

In many cities the distribution of milk is in the hands of a few large firms. In some year between 1929 and 1939, two distributors handled approximately half of the milk sold in New York, Chicago, Philadelphia, Detroit, Boston, Pittsburgh, San Francisco, Milwaukee, and Youngstown, two-thirds of that sold in Baltimore, and nine-tenths of that sold in Akron. One distributor handled more than a third of the milk sold in Pittsburgh, Milwaukee, and Salt Lake City, half of that sold in Baltimore, Washington, Akron, and Richmond, and two-thirds of that sold in Madison. Many of these local distributors are controlled, in turn, by one or the other of two large holding companies that operate on a national scale. Subsidiaries of these concerns handled half or more than half of the milk distributed in nine of the cities.

Price Leadership.

Where one or a few firms dominate a trade, price leadership is likely to obtain. If a single firm overtops its rivals, it may invariably take the initiative in raising or lowering the price. If two or more concerns are dominant, one may habitually serve as leader or more than one may lead, each in a different territory or each in turn. The smaller firms in such a field will follow the changes that are announced and sell at the prices that are set. They may

be subjected to hidden pressure by the leader. They may fear annihilation in the warfare that would be provoked by an attempt to undercut him. They may seek to obtain larger profits by taking refuge under the price umbrella which he holds over the trade. They may merely find it convenient to follow his lead. In any case, they abandon independence of judgment and adopt his prices as their own.

Prices established through leadership are not effectively competitive. The leader, controlling a substantial portion of the output of the trade, estimates the sales revenues and the production costs incident to the quantities salable at various prices and produces the amount and sells at the figure calculated to yield him the largest net return. In short, he behaves as a monopolist. When other sellers adopt the same price they offer buyers no real alternative, since they must pay leader and followers the same monopoly price.

Prices thus established may be rigidly maintained over long periods of time. In general, they are likely to be higher than those that would prevail under active competition. They are sometimes productive of high profits, but they are not invariably so. In many cases they temporarily afford a return so large that additional firms are encouraged to enter the field. The business obtainable at the fixed price is shared by an increasing number of participants. The price leader gets a declining percentage of the trade. Idle capacity piles up, to be carried at heavy cost. Monopoly pricing persists, but monopoly profits are not secured. Leadership serves but to forestall the competitive struggle that would otherwise obtain.

Evidence of price leadership is found in the sale of steel, cement, agricultural implements, gasoline, nonferrous metals, newsprint paper, glass containers, biscuits and crackers, and in the purchase of crude petroleum.

Price Agreements.

In markets where sellers are few in number they may more readily enter into agreements establishing and maintaining uniform prices and terms of sale. Such agreements, though plainly in violation of the law forbidding conspiracies in restraint of trade, have not infrequently occurred. Since 1920, apart from those instances in which a trade association, industrial institute, or some other common agency was employed, cease and desist orders have been issued by the Federal Trade Commission, and decisions have been handed down by the courts in cases involving the producers of viscose rayon yarn, pin tickets, tin plate, flannel skirts, turbine generators and condensers, liquid chlorine, medical cotton goods, calcium chloride, corn cribs and silos, certain types of water works and gas system fittings, fire fighting equipment, pulverized iron, rubber heels, music rolls, lithographed labels, plumbing supplies, fertilizer, metal lath, gasoline, and brushes.

More recently complaints have been issued by the Commission against the distributors of foreign-type cheese, the manufacturers of medical cotton goods, chemical and agricultural lime, and erasers, and suits have been initiated by the Department of Justice against distributors of milk in Chicago, against the producers of newsprint paper on the Pacific coast, and against firms engaged in the manu-

facture of tobacco products, typewriters, ophthalmic lenses, frames, and mountings, hardboard, and mineral wool for home insulation. It is not unlikely that such arrangements have been even more numerous than the official record would indicate. Indications of price agreements have been found in steel, iron ore, gasoline, chemical nitrogen, potash, typewriters, eyeglasses, cheese, and life insurance.

Delivered Price Systems.

In those industries where a few concerns sell a product so heavy that transportation costs are high they have frequently contrived to eliminate competition by quoting prices which include a charge for delivery from a common basing point. This practice compels the buyer to pay the seller not only for his goods but also for their transportation. When he buys from a plant located at the basing point he pays for delivery a sum which equals the cost the seller has incurred. But when he buys from a plant located elsewhere he pays not the cost of shipment actually involved but freight from the basing point. He may purchase from a nearby mill and pay for freight from one located many miles away. The charge for freight included in his price is largely fictitious, since it is almost invariably based on all-rail freight rates even though the goods move by water or truck. Whether he buys from an adjacent or a distant plant his payment for delivery is the same. He may have goods shipped to him at equal cost by any firm in the business.

In industries operating without benefit of basing-point systems, firms in the home market usually undersell distant rivals in that market because of the difference in transportation costs. Where firms agree on a common basing point, each one, foregoing the competitive advantage inherent in its location, makes its delivery charge so high as to enable practically every other producer to sell in its home territory. Too distant firms are, however, at a disadvantage because they are not able to absorb an unlimited amount of freight in order to meet prices in a sales territory far removed from them.

In itself the basing point method of quoting prices need not involve price uniformity. The delivered price includes two elements: the charge for freight, and the price of the product at the basing point. When base prices as well as delivery charges are uniform the delivered price quotations of different sellers are identical. This, however, is usually the case. But it does not always hold, for all that is needed to have an identical delivered price is that some particular base price be recognized as applicable in a given territory. It is not necessary that such base price be the same as other base prices.

An industry so thoroughly in harmony that it can agree upon one element in the delivered price is unlikely to encounter serious difficulty in reaching some sort of an understanding on the other. It is the combination of price leadership or price agreement with the delivered price practice that makes such prices noncompetitive. If leadership or agreement were to be abandoned, there would be little reason for selling on a delivered basis, since the practice finds its significance in the enforcement of uniformity.

Delivered price practices, common to whole industries, differ in detail. In the single basing-point system, only one city in the country is used as a basing point. In the multiple basing-point system, two

or more such points are employed. Here each firm quotes the purchaser a delivered price which is the sum of the base price and the freight from the basing point nearest him. In the zone-price system, uniform delivered prices obtain at all destinations within each of two or more geographical areas, varying from one area to another according to the difference in average freight rates from a common basing point to the several points in each. The zone system is thus akin to the single basing-point device. Under the freight equalization plan, the seller computes his price to any buyer by first adding together the price quoted by the plant nearest the buyer and the freight rate for delivery from that plant and then subtracting from the resulting sum the freight that he himself must pay. This plan may produce results resembling intense competition though it partakes of the nature of a multiple basing-point system, with each plant serving as a basing point. Each of these systems rests upon a common understanding in the trade. Each of them contributes to a program which makes price quotations uniform at any point of sale. Each operates, in greater or lesser degree, to raise prices to a level that could not otherwise obtain.

Such systems, in one form or another, have been employed in the sale of asphalt roofing, bath tubs, bolts and nuts, cast iron pipe, cement, coffee, copper, corn products, denatured alcohol, fertilizer, gasoline, gypsum board, industrial rivets, lead, linseed oil, lumber, metal lath, newsprint paper, pig iron, power cable and wire, range boilers, salt, snow fence, soap, steel, stoves, sugar, tiles, turbine generators and condensers, and zinc, and also, under N. R. A. codes, in the sale of automobiles, automobile parts, bearings, builders' supplies, business furniture, china and porcelain, coal, construction machinery, cordage and twine, farm equipment, food and grocery products, glass containers, ice, ladders, liquefied gas, lime, lye, paint and varnish, paper and pulp, paper bags, ready-mixed concrete, refractory products, reinforcing materials, road machinery, shovels, draglines and cranes, storage and filtering equipment, structural clay products, valves and fittings, and vitrified clay sewer pipe.

Patents.

A patent confers upon its holder for 17 years the exclusive right to make, use, and sell the patented product or device. It permits him to transfer this right to others or to retain it for himself, to employ it in production, or to withhold it from use. In short, it grants him a monopoly. The courts, however, have been unanimous in holding that such a grant does not carry with it exemption from the provisions of the antitrust laws. They have therefore been compelled to draw a line between the exclusive privileges conferred by patents and the statutory prohibitions against restraint of trade. Nevertheless, patents have been used all too frequently as a means of subjecting prices and production to monopolistic control. The economic rather than the legal aspects of this development are of concern here.

Although the agencies of government, in their administration and interpretation of the patent laws, may preserve strict neutrality in dealing with different applicants for patent rights, inequality in the financial resources of such applicants may operate to the advantage of the stronger firms. While patent fees are low and the Patent Office and the courts will grant no special favors to large concerns, the complexity of the system creates potentialities of endless litigation and

threats of litigation in which the party with the best legal talent is likely to be victorious. Thus a powerful patentee may be able to defeat the attempt of a small competitor to obtain or use a patent that would cut into the area of privilege which he holds. Interference proceedings may force the smaller firm to sell a pending application at the buyer's price. Infringement suits may compel a weaker company to transfer its patents to a stronger one. Exclusive rights thus tend to gravitate to large concerns, regardless of the legal status of their claims. Moreover, the holder of a basic patent may be the only buyer to whom patents on improvements can be sold. During the life of the basic patent, he may command the field. Upon its expiration, his dominant position, fortified by his ownership of patents on improvements, may make it difficult, if not impossible, for others to compete. The system in its operation may thus involve a wider area and a longer tenure of power than those envisaged by the framers of the law.

The patentee who licenses other firms to operate under his patent rights may include in his contracts provisions which are designed to preserve, strengthen, and extend his monopoly. He may prescribe the quantity that his licensees may produce, the territories in which they may sell, the customers with whom they may deal, and the prices which they must charge, thereby limiting their freedom to compete. He may insist that they buy exclusively from him, thereby restricting the market available to his competitors. He may require them to buy unpatented materials from him, thereby extending his control into fields where his patent does not apply. His power to refuse or withdraw licenses may thus be employed as a weapon whereby varying degrees of power over the markets for various products may be acquired.

In industries where essential patents are owned by several firms, each of them may grant licenses to all of the others, or all of them may transfer their patents to a common pool. Under such a plan, improvements in products and processes resulting from invention are made available to all of the participants and costs are reduced by eliminating litigation within the group. If unrestricted licenses are granted to all applicants on reasonable terms, cross-licensing and patent pooling do not contribute to monopoly. But these arrangements, too, may be abused. The group may employ its combined resources in litigation designed to exclude outsiders from the field. It may refuse licenses to non-members or grant them only on onerous terms. It may attempt to limit output, allocate markets, and control the prices charged by licensees. Here, again, patents serve as a weapon whereby competition may be destroyed.

Market control through patents has been found by the courts to have existed, since 1920, among producers of ophthalmic lenses, porcelain insulators, radios, and gasoline, and is asserted in current complaints to have existed among producers of ophthalmic frames and mountings, gypsum board, hardboard, and mineral wool. It has made its appearance in the glass container field, where the Hartford-Empire leases have contributed to the suppression of competition by limiting the number of firms permitted to produce each type of ware, by imposing restrictions on the output of certain licensees and on the prices they may charge, and by supporting the system of price leadership which prevails throughout the trade. It has existed, too, among pro-

ducers of aluminum, shoe machinery, optical glass, telephone equipment, electric lamps, electric accounting machines, air brakes, sulphur, asphalt shingle and roofing, and elevators.¹²

Competitive Practices of Dominant Firms.

Firms dominant in a field, by virtue of their superior bargaining power, have frequently imposed upon those with whom they deal arrangements calculated to place their weaker rivals at a competitive disadvantage. In some cases, they have made exclusive contracts with the only producers of equipment or materials or refused to buy from companies who sold to their competitors, thus cutting the latter off from sources of supply. One instance of such a practice occurred in the early years of the century, when the American Can Co. contracted for the entire output of plants manufacturing automatic machinery for making cans. Another was found by the Federal Trade Commission to have occurred more recently, when the three leading operators of candy vending machines arranged with the two largest manufacturers of chocolate bars to purchase all of the product sold for use in such machines.

In other cases, dominant firms have demanded and obtained prices which fell below those charged their competitors by an amount that could not be justified by differences in cost. Among those found by the Commission to have benefited from such discrimination are chain-store organizations, mail-order houses, and other large distributors. In still other cases, firms purchasing in quantity have compelled companies supplying them with goods or services to buy other goods or services from them. Thus, Swift & Co. and Armour & Co., large shippers of meat, were each allied at one time with concerns producing minor railroad equipment. By threatening to divert their shipments to other lines, they forced the railroad companies to buy equipment from these concerns, thus indirectly obtaining lower transportation costs than those available to their competitors.

Highly integrated firms have sometimes profited at the expense of independent companies whose operations were confined to a single stage of the productive process. By establishing a low price for raw materials and a high price for finished products, they have made it difficult for other producers of materials to compete; or, by setting a high price on raw materials and a low price on finished goods, they have obtained a similar advantage over independent fabricators. Such practices are said to have been employed, for instance, by integrated firms producing aluminum, steel, and gasoline.

Large concerns have frequently attempted to exclude their smaller rivals from the market by imposing upon distributors contracts forbidding them to handle goods produced by other firms. Exclusive arrangements of this sort have been used, at some time since 1920, by the Eastman Kodak Co., the National Biscuit Co., the National Broadcasting Co., and the Columbia Broadcasting System, and have obtained in the sale of dress patterns, electric switches, music rolls, canned sirups, tinted lenses, pass books and account books, and automobile carburetors.

Firms producing two or more goods or services have often made use of still another device—refusing to supply a customer with one of

¹² For further discussion of the role of patents in limiting competition, see Temporary National Economic Committee Monograph No. 31, *Patents and Free Enterprise*, by Walter H. Hamilton.

their products unless he would also take another, thus closing the market to competitors in the latter field. The United Shoe Machinery Corporation once compelled lessees of its lasting machines to turn to it for their welters, stitchers, and metallic fasteners, and the International Business Machines Corporation and Remington-Rand, Inc., each required lessees of its tabulating machines to buy its tabulating cards.

Tying contracts of this sort have also been found or alleged, since 1920, to have been employed in selling targets to lessees of clay pigeon traps, accessories to purchasers of pressure gages for automobile tires, valves to lessees of bag-filling machines, paper bags and sticks to lessees of machines used in the manufacture of frozen confections, and bands and wires to lessees of tying machines, in each case giving the producer of the second article an advantage over his competitors in the production of the first.

Firms selling a large number of goods or services have sometimes followed a similar practice, refusing to supply any of their products to purchasers who would not agree to take several or all of them. Manufacturers of agricultural implements, by forcing their full lines on distributors, manufacturers of automobiles, by requiring dealers to handle their parts and accessories and to use their subsidiary finance companies in making sales on the installment plan, and producers of motion pictures, by compelling exhibitors to book their films in blocks, have thus profited at the expense of competitors whose operations were narrower in scope.

Market Sharing.

In certain industries, dominated by a few large firms, competition is avoided by behavior which maintains a settled distribution of the business in the field. Here the dominant concerns amicably share supplies and markets, no one of them attempting to trespass on another's ground, each of them habitually abstaining from bidding against the others in making purchases and sales. In some cases they act in conformity with the terms of an explicit agreement; in others, they merely follow the conventions of the trade. Such behavior is customary among investment bankers.¹³ It has made its appearance among anthracite coal operators and meat packers and is alleged to have existed in the tobacco industry.

Intercorporate Relations.

Common control of enterprises engaged in the same industry is not consonant with the existence of bona fide competition among them. Such control may be achieved through the ownership of voting stock, through interlocking directorates, through financial affiliations, or through personal ties of a less tangible sort. In the Clayton Act of 1914, Congress undertook to prevent the employment of the first two of these devices as means of eliminating competition between two or more concerns. Section 7 of that act makes it unlawful for a corporation to acquire the stock of a competitor, or for a holding company to acquire the stock of two or more competitors, where the effect of such action may be substantially to lessen competition, or to restrain commerce, or where it may tend to create a monopoly. Section 8 provides that no person may be a director of two or more corporations

¹³ For further discussion, see Hearings before the Temporary National Economic Committee, Parts 22, 23, and 24.

engaged in commerce, where any one of them has capital, surplus, and undivided profits aggregating more than \$1,000,000 and where elimination of competition between them would constitute a violation of the antitrust laws. The scope of these prohibitions, however, was limited by Congress and has been further restricted by the courts. Section 7 does not forbid outright mergers and it does not prevent individuals from holding stock in competing concerns. Section 8 does not prohibit directors of two corporations in one field from sitting together on the board of a third corporation in another field.

In 1926, moreover, the Supreme Court of the United States decided, in the *Swift* and *Thatcher cases*, that the Federal Trade Commission could not order a company to divest itself of the assets of a competitor if it had effected a merger, while the proceeding was pending, by voting stock which it had unlawfully acquired. And again in 1934, the Court decided, in the *Arrow-Hart & Hegeman case*, that the Commission was powerless to act when a holding company after acquiring the shares of two competing corporations, had distributed them to its stockholders, who had thereupon voted to merge the two concerns. As a result of these limitations, stock ownership and interlocking directorates have continued to contribute to concentration of control.

Stock ownership.—Traffic over the detour which the Court built around section 7 has been heavy. This route has been followed by producers of copper, motion pictures, petroleum, salt, and whisky, by manufacturers of automobile parts, biscuits and crackers, electrical devices, glass, glass containers, gypsum products, heavy chemicals, paper and fiber-board boxes, roofing materials, and steel, by packers of meat, by distributors of dairy products, by lessors of tank cars, and by firms engaged in many other trades. Among 547 mergers between 1929 and 1936, the Federal Trade Commission found that 54 percent had been consummated through the acquisition of assets.

Section 7 is thus a source of minor inconvenience to those who seek to buy up competition or impose control upon competitors, but it is little more. The Commission has repeatedly urged its amendment to prohibit the acquisition of assets as well as the acquisition of stock, and the Temporary National Economic Committee has made a similar recommendation, in its preliminary and final reports.¹⁴

There are indirect forms of intercorporate stockholding, not within the purview of section 7, which may also operate to limit competition. In some cases, competing concerns have owned stock in a corporation doing business in another field. There are 25 corporations—mostly pipe line, patent-holding, and foreign enterprises—which are subsidiaries or affiliates of 2 or more of the major oil companies. The Great Lakes Pipe Line Co., for example, is owned by 8 of these concerns. Every one of the majors owns stock in some corporation in which at least 1 of the others has an interest.

In other cases, the chain of relationships has several links. Thus, the Du Pont Co. and the Dow Chemical Co., two of the largest manufacturers of chemicals, are connected through Du Pont's ownership of stock in General Motors, which shares with Standard Oil of New Jersey the ownership of the Ethyl Gasoline Corporation, which shares with Dow the ownership of the Ethyl-Dow Corporation. The United States Rubber Co., which sells tires to General Motors, is also controlled by

¹⁴ S. Doc. 95, 76th Cong., 1st sess., pp. 20-21; S. Doc. 35, 77th Cong., 1st sess., pp. 38-39.

Du Pont. In still other cases, stockholdings uniting firms in different industries may give them an advantage over their competitors in obtaining raw materials or in marketing their goods. The ownership of pipe lines by oil refiners, iron ore companies by steel producers, and anthracite mines by railroads are cases in point.

The stock of 2 or more corporations which are nominally in competition is sometimes held by the same person. In 1939 the stockholders of the Diamond Match Co., which alone accounted for more than half of the American match business, also owned shares of the Ohio, Lion, Universal, Federal, and West Virginia match companies. Diamond's president held 51 percent and Diamond itself held the other 49 percent of the stock of the Berst-Forster-Dixfield Co. These 7 concerns, together, produced nine-tenths of the Nation's output of matches. On December 31, 1938, each of 58 among the 120 largest stockholders in 17 major oil companies owned shares in 2 to 5 of these concerns; each of the majors, of course, had thousands of stockholders, the numbers ranging from 3,152 in the case of Skelly Oil to 466,658 in the case of Cities Service. But the 100 largest stockholders owned more than a fifth of the shares in all 17, more than two-fifths in 9, more than three-fifths in 5, and more than four-fifths in 3. And here, as elsewhere, diffusion of ownership facilitated concentration of control. Members of the Rockefeller family and foundations established by the Rockefellers were in a controlling minority position in at least 6 of the major companies, holding 7.1 percent of the voting stock in Atlantic Refining, 13.8 percent in Standard of Indiana, 16.5 percent in Standard of New Jersey, 16.6 percent in Standard of California, 20.8 percent in Socony-Vacuum, and 24 percent in Ohio Oil.

While all of these concerns are independent enterprises, with complete freedom to determine their own policies, it seems hardly likely, in view of the extent to which they are owned by the same people, that any one of them would pursue a course which was prejudicial to the interests of the others.

Interlocking directorates.—Interlocking directorates between competitors, though not unknown, are uncommon. The Federal Trade Commission has issued only five complaints under section 8 of the Clayton Act and all of these were dismissed. The Commission reported in 1927 that: "The few cases arising under this part of the statute are probably due to the fact that its requirements can readily be met and the desired results obtained by other means."¹⁵

Section 8, however, does not forbid directors of two competing corporations to serve together on the board of a third corporation in another field. Two such cases may be mentioned. Directors of General Electric and Westinghouse, the two leading manufacturers of electrical equipment, sat together on the boards of the American Telephone & Telegraph Co., the New York, New Haven, and Hartford Railroad Co., and the Chase National Bank. Directors of Armour and Wilson, two of the "Big Four" meat packers, sat together on the boards of International Harvester, the Chicago Great Western Railroad Co., and the Continental Illinois National Bank & Trust Co. There are no means of gaging the extent to which such interlocks may operate to limit competition. It does not seem likely, however, that two per-

¹⁵ Federal Trade Commission, Annual Report, 1927, p. 17.

sons who are harmoniously associated in an enterprise in one field will disregard each other's interests in another.

A third type of interlocking occurs in those cases where concerns that trade with one another have directors in common. Among the 250 corporations studied by the National Resources Committee such relationships were numerous. Insurance companies, which buy securities, were widely interlocked with railroads, utilities, and manufacturing concerns. General Motors and the Chrysler Corporation, heavy purchasers of metals, were interlocked with steel companies; General Motors with a copper company.

There were many such cases; 225 of the 250 corporations had interlocks with others in the group. A corporation which is thus related to concerns in other fields may have a marked advantage over its competitors in obtaining supplies and in marketing its goods and services. Again, it is impossible to determine whether, or to what extent, interlocking directorates are employed to this end; the temptation so to use them, however, must be felt in nearly every case where such a link exists.

Interest groupings.—In their broadest aspect, intercorporate relationships take a form which the National Resources Committee designates as "corporate interest groupings." The members of these groups may be connected through stock ownership, interlocking directorates, common affiliations with investment banks, intangible personal ties, or a combination of these means. Of the 250 corporations which it studied, the Committee placed 106 within 8 such groups. In the Morgan-First National group are 41 concerns, including 2 copper companies, Kennecott and Phelps Dodge, and the two largest anthracite mining companies, the Philadelphia and Reading Coal and Iron Corporation and the Glen Alden Coal Co., which together produce about 31 percent of the hard coal mined in the United States. Of this group the Committee says:

While it is certain that the extensive economic activity represented by these corporations is in no sense subject to a single, centralized control, it is equally certain that the separate corporations are not completely independent of each other. The climate of opinion within which their separate policies are developed is much the same, many of the same people participate in the formulation and review of the policies of the separate corporations, financing is carried on for the most part through the same channels, and in many other ways this group of corporations constitutes an interrelated interest group.¹⁶

It closes its report on the investigation with a question which it does not attempt to answer: "What is the significance of the existence of more or less closely integrated interest groupings for the pricing process?"

THE INCIDENCE OF COMPETITION AND MONOPOLY

It is impossible to estimate in precise quantitative terms the comparative extent of competition and monopoly at any given time. The concepts cannot be defined with the precision required in measurement. The necessary data are not available. The situation, moreover, is a constantly changing one. Proceedings by both the Department of Justice and the Federal Trade Commission indicate that monopolistic control over prices and production has been and is characteristic of a

¹⁶ National Resources Committee, *The Structure of the American Economy*, Part I, 1939, p. 162.

large share of American business. This condition is suggested by studies indicating a high degree of concentration in corporate business, where, according to a report of the National Resources Committee, "a rough relation is apparent between concentration and price insensitivity." Further consideration of the factors that influence the frequency and amplitude of price changes in manufacturing during the depression led the authors of the report to the conclusion that "the dominant factor in making for depression insensitivity of prices is the administrative control over prices which results from the relatively small number of concerns dominating particular markets." Suggestive evidence is also found in the extent of price uniformity in the submission of bids on public contracts.¹⁷

While no final evaluation is possible concerning the amount of competition and monopoly present in our economy, certainly monopoly has greatly increased in American industry during the last 50 years because of the lax enforcement of the antitrust laws, the impetus to price-fixing given by World War I, the tremendous development of trade associations during the twenties which increased price-fixing, the N. R. A. experiment in 1933, and the great merger movements from 1898 to 1905 and from 1919 to 1929. Moreover, the files of the Federal Trade Commission are replete with cases demonstrating increasing monopoly.

In those industries which appear normally to be competitive, competition is constantly breaking down. Competitors continually seek to limit competition and to obtain for themselves some measure of monopoly power. They enter into agreements governing prices and production. They set up associations to enforce such agreements. They procure the enactment of restrictive legislation. For a time they may succeed in bringing competition under control.

It is sometimes asserted, or assumed, that large-scale production, under the conditions of modern technology, is so much more efficient than small-scale production that competition must inevitably give way to monopoly as large establishments drive their smaller rivals from the field. But such a generalization finds scant support in any evidence that is now at hand.¹⁸

It is true that there are advantages in size. The large plant can install big, expensive, and highly specialized machines; it can provide them in great numbers; and it can arrange them in the proportions and in the sequences that are most conducive to continuous processes and low costs. It can realize the economies that are to be obtained through a minute division of labor. It can utilize byproducts, purchase in quantity, and secure credit on favorable terms. It can employ skilled managers and technical experts and spend large sums on experimentation and research. Superiority in these respects, however, pertains to the size of the operating unit; it does not necessitate the combination of several units under a common management. But even here certain advantages may be obtained. Vertical integration may insure a steady flow of materials and continuous access to markets. Horizontal combination may enable managements to specialize in-

¹⁷ *Ibid.*, p. 140. See also Temporary National Economic Committee Monograph No. 21, pp. 299-301, for a summary interpretation of available data relating to concentration of business activity, uniformity, and rigidity of prices.

¹⁸ For more detailed discussion see Temporary National Economic Committee Monograph No. 13, *Relative Efficiency of Large, Medium-Sized, and Small Business*.

dividual plants, to eliminate cross freights, to cut the cost of capital, to buy materials in even larger quantities, to advertise more widely, and to reduce the expense involved in making sales.

But size, both in the unit of operation and in the unit of control, has its disadvantages. A business may become so big that no man can manage it efficiently. It may present so many changing problems that no single mind can hope to comprehend them. It may be so vast, so scattered, and so diversified that no one can really know what is going on. Under these circumstances the manager is forced to obtain his information from accounts and statistics, to issue orders from a distance, and to rely upon paper controls. He may be bogged down with memoranda, reports, and routine. He may hesitate to make decisions and waste time in interminable delays. His subordinates may be more concerned with their own advancement than with the welfare of the enterprise. They may be entangled in red tape. They may fail to act decisively because they fear to be reversed. They may shift responsibility to others and waste further time in lost motion and internal conflict. The whole organization may be beset with nepotism, political maneuvering, factional warfare, and petty jealousies. So efficiency may be sacrificed to size and managements may grow lax or take refuge in inflexibility, resisting adjustment to changing conditions and refusing opportunity to new blood and new ideas.

A business may be too small to realize the economies that are implicit in modern technology; it may be too large to be administered with competence. Between these extremes there may be a size of optimum efficiency. But this size will differ from industry to industry. It may change overnight with the development of new machinery, new processes, and new techniques of management. And no one can locate the optimum in any industry at any time with any certainty. It may even be that any one of several sizes will display the same efficiency. It cannot be said that the largest concern in an industry will invariably have the lowest costs or produce the highest profits.

The superior efficiency of large establishments has not been demonstrated; the advantages that are supposed to destroy competition have failed to manifest themselves in many fields. Nor do the economies of size, where they exist, invariably necessitate monopoly. These economies have to do with technology in production, power in bargaining, and competence in administration. Monopoly, on the other hand, has to do with the extent to which a single firm, or a group of firms acting in unison, controls the supply of a good or a service in a particular market. The size or the sizes of optimum efficiency may be reached long before the major part of a supply is subjected to such control. The conclusion that the advantages of large-scale production must lead inevitably to the abolition of competition cannot be accepted. It should be noted, moreover, that monopoly is frequently the product of factors other than the lower costs of greater size. It is attained through collusive agreements and promoted by public policies. When these agreements are invalidated and when these policies are reversed, competitive conditions can be restored.

In those industries where the nature of the product, the market, the supply of materials, and the technology of production are such

as to encourage it, competition reasserts itself in the face of collusive agreements and restrictive legislation. Commodities that cannot be identified with their producers may be provided by many firms. Goods whose sale depends upon their style, articles of distinctive design, products that are made to order, and services that must be rendered in person, since they do not lend themselves to standardization, mechanization, or mass production, are likely to be sold by several establishments no one of which controls a major part of the supply. Markets that are large and those that are growing invite the entrance of numerous concerns. Markets so limited that a small scale of operations holds down the capital required for admission may also prove to be hospitable to newcomers. An abundance of materials and a wide dispersion of the sources of supply facilitate the erection of many plants. A technology that is simple presents no obstacle to new enterprises. Processes that depend upon highly skilled labor, those that resist mechanization, and those that permit a small establishment to produce at a low cost, since they do not necessitate a large investment in a single plant, favor the formation of a multitude of small concerns. Each of these factors contributes to the preservation of competitive conditions in a trade.

In other fields the characteristics of the product, the market, the supply of materials, and the technology of production are conducive to monopoly. A service whose adequate performance requires unified operation is better rendered by a single concern. Goods that can be standardized and manufactured in quantity lend themselves to mass production which, in turn, may sometimes lead to concentration of control. Products that can be associated with brand names may be removed, in some degree, from competition. The great width of markets for standardized, machine-made goods may enlarge the scale of production and thus increase the possibility of concentration. The narrowness of markets for the products of difficult and costly processes may deliver them into the hands of a few firms. Scarcity of materials and paucity of the sources of supply facilitate unified ownership. A technology which necessitates the acquisition of extensive properties, the construction of huge plants, and the installation of expensive equipment may prevent the establishment of new concerns. Ability to cut unit costs by increasing the scale of production may reduce the number of competitors. Heavy fixed charges and fear of the consequences of competitive warfare may inhibit competition on the basis of price.

But monopoly cannot be attributed to characteristics inherent in products, markets, and productive processes alone. It is the product of formal agreements and secret understandings; of combinations, intercorporate stockholdings, and interlocking directorates; of the ruthless employment of superior financial resources and bargaining power; of unequal representation before legislatures, courts, and administrative agencies; of the exclusion of competitors from markets, materials, and sources of investment funds; of restrictive contracts and discriminatory prices; of coercion, intimidation, and violence. It is the product, too, of institutions of property which permit private enterprises to take exclusive title to scarce resources; of franchises, permits, and licenses which confer upon their holders exclusive privileges in the

employment of limited facilities and the performance of important services; of patents which grant to their owners the exclusive right to control the use of certain machines and processes and the manufacture and sale of certain goods; of tariffs which exclude foreign producers from domestic markets; of statutes which exclude out-of-State producers and ordinances which exclude out-of-town producers from local markets; of legislation which limits output, fixes minimum prices, and handicaps strong competitors; and of inadequate enforcement, over many years, of the laws that are designed to preserve competition. In nearly every case in which monopoly persists, it will be found that artificial factors are involved.

CHAPTER II

CONCENTRATION OF PRODUCTION ¹

The total national product is the result of economic activity in many different lines of endeavor. It represents the total output of all commodities produced and all services rendered in the country. In many lines of activity there is no question or problem of concentration. In agriculture, for example, a large part of the output is the product of thousands of independent producers, no one of which has control over any significant portion of the total output. In certain service activities, such as transportation, communication, and public utilities, operations are conducted under essentially monopolistic conditions, but there is Government regulation. In other lines, however, the production of particular items is concentrated in a very few hands, yet reliance is placed on competitive forces to organize productive activity.

Concentration may appear at any of the various stages through which products flow on their way from the extraction of raw materials through manufacturing and distribution to the final consumer. Concentration of production in manufacturing and to a lesser extent concentration of production in mining is here analyzed. These two segments of economic activity occupy a prominent place in the total productive activity of the economy, and around them the questions of concentration have been most frequently raised.²

In this chapter the concentration of production in manufacturing will be examined from a number of different angles. The basic operating unit in manufacturing is the establishment. The first task, then, is an examination of the trends in the size of manufacturing establishments and an appraisal of the extent to which manufacturing operations in various industries are concentrated in large establishments. The analysis at this level is essentially a description of plant size in a technical sense. In an examination of the problems of monopoly and an appraisal of the effectiveness of competition the size of plant is important chiefly as it is indicative of the ease or difficulty of entrance into the industry, since a single plant is presumably a minimum requirement.

More than one establishment may be operated by one business unit. The second level of analysis deals with these multiunit concerns, or, in the terminology of the Bureau of the Census, with the central-office company. What part of all manufacturing operations is under central-office control? How extensive are their operations?

¹ This chapter is based largely on Temporary National Economic Committee Monograph No. 27, *The Structure of Industry*, by Dr. Willard L. Thorp and Walter F. Crowder of the Department of Commerce. It was digested and arranged by Mr. Crowder, following which it was criticized by Dr. Clair Wilcox, professor of economics, Swarthmore College, and by Dr. Myron W. Watkins, professor of economics, New York University.

² Income produced in manufacturing accounted for 24 percent of the total national income in 1937 and income produced in mining accounted for 2.1 percent of the total.

In these two parts cross-section pictures of the physical and organizational structures of manufacturing operations are presented. The position occupied by the 50, the 100, and the 200 largest manufacturing corporations is also examined.

Marketwise, the significance of the size of a plant or of an enterprise is largely, if not wholly, dependent upon the proportion of the aggregate volume of the particular kind or class of products sold in any given period which is manufactured in the given plant or by the given enterprise. Since the products actually manufactured in these operating units are the things which are bought and sold, an analysis of product concentration is of primary importance. In the third part of this chapter the patterns of output control in the production of a comprehensive sample of manufactured products and a somewhat restricted list of mineral products are examined. Furthermore, in order that the role of big manufacturing corporations in the economy may be appraised, the product structures of the largest 50 manufacturing concerns are analyzed in detail. There the relation between bigness and concentration is examined.

TRENDS IN SIZE AND CONCENTRATION IN MANUFACTURING ESTABLISHMENTS

There has been a definite tendency during the past three decades for the average size of manufacturing establishments to increase. As may be seen in chart I, the average number of wage earners employed per establishment fluctuated somewhat with business conditions. The fluctuations may be accounted for in part by the difference in coverage of the census enumeration, and with the methods employed in taking the various censuses, but a long-time upward trend is unmistakable.³ This conclusion as to the long-time trend is strengthened when the effects of a marked increase in output per wage earner due to changing technology over this period are taken into account. The unusual increase in the size of establishments from 1931 to 1937 should not be given too much weight in light of the many difficulties encountered in making valid comparisons over this period. Much of this increase can probably be accounted for by more complete utilization of plants during the recovery in business activity after 1933 and the lower proportion of the number of small establishments in the total. Certainly, before the average for 1937 can be taken as establishing a new and much higher level in the average size of plants rather than a temporary situation in manufacturing industries in that year, it will be necessary to have it confirmed by succeeding censuses.

Establishments have also increased in size when measured in terms of the average value of products per establishment. Expressed as index numbers, the average value output per establishment increased steadily from a base of 100 in 1914 to 177 in 1929, dropped to 163 in 1931, rose slowly to 172 in 1935, and then advanced sharply to an all-time high of 216 in 1937. The volume of production per establishment fluctuated rather closely with changes in business conditions and, as in the value series, the 1937 figure represented the peak for the period.

³ The two series covering the periods 1899 to 1919 and 1914 to 1937 were derived from statistics based upon somewhat different coverage of manufacturing operations. The first series includes establishments reporting a total value of products of \$500 or more while the second series includes only establishments reporting a total value of products of \$5,000 or more.

In the latter year the index of quantity output per establishment stood at 185 as compared with 154 in 1929 and 100 in the base year, 1914.

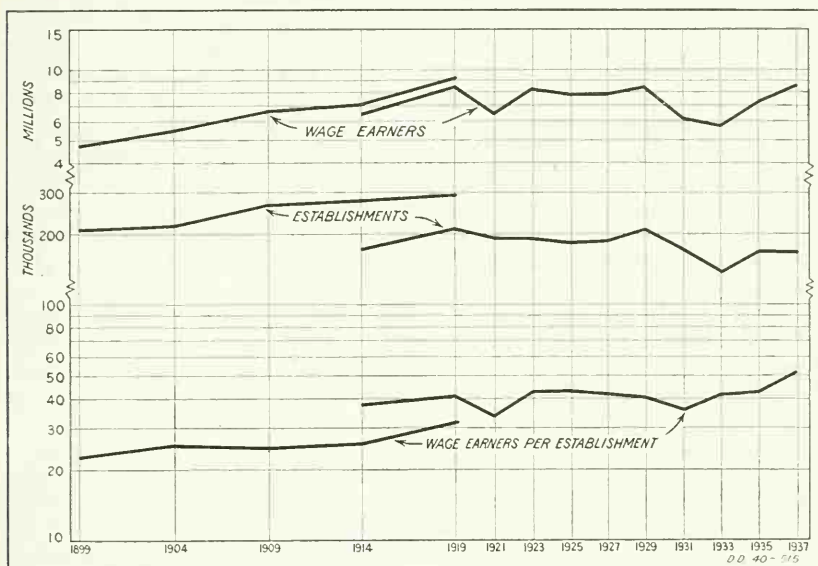


CHART 1.—Wage earners and establishments, 1899–1937.

As was pointed out in part I of T. N. E. C. Monograph No. 27, overall averages of this type are somewhat misleading, since such an average is calculated merely by dividing the total number of wage earners by the total number of establishments, etc. In 1937, for example, there were 51.4 wage earners per establishment. Only about one-sixth of all establishments, however, were actually this large, although these relatively few large establishments accounted for nearly five-sixths of all the wage earners employed in manufacturing. In other words, the majority of establishments were small, but the relatively large establishments accounted for the greater portion of the wage earners employed.

In order that the shifts in size of establishments might be measured, establishments were distributed on the basis of the actual number of wage earners employed in each of 4 years (1914, 1919, 1929, and 1937) throughout the period under study. Increases in both the number of very small establishments and the number of very large establishments were recorded in the 1914–19 period; there was very little change in establishment size in the 1919–29 period, while a marked reduction in the number of smaller establishments and a moderate increase in the number of larger establishments occurred after 1929.

Detailed statistics for each of 204 industries indicate that these overall fluctuations were not necessarily characteristic of all industries. Approximately one-third of these industries were actually operating on a smaller scale in 1937 than in 1914. On the other hand, there were 31 industries in which employment per establishment more than doubled. It should be noted, however, that not all of these 31 industries

were really large or that employment per establishment was sufficiently great even in 1937 to influence to any very great extent the overall average cited in preceding paragraphs.

The greater part of the increase in the average size of establishments in all manufacturing was accounted for in very large measure by the growing importance of certain large-scale industries. Total employment in the 50 industries operating the largest establishments increased 37 percent between 1914 and 1937, as compared with a 32.3 percent increase in employment in all manufacturing. Five of these industries—steel works and rolling mills, motor vehicles, motor-vehicle bodies and parts, electrical machinery, and chemicals—accounted for one-third of the entire increase in plant-size during the 23-year period. Not only did the average size of establishment increase in these five instances, but total employment nearly trebled.

Growth in the average size of establishments, however, should not be confused with growth of an industry. Of the 63 industries in which the average size of establishment declined, 22 reported an increase in total employment, while 4 of the 31 industries in which the average size of establishment more than doubled reported an actual decline in total employment.

In summary, there has been a slow but definite increase in the size of establishments—due in large part to the increasing importance of certain large-scale industries in our economy. Until the 1929–33 depression, there was no evidence of a change in the relative number of small-scale operators. At that time the decrease in small plants was greater than the decrease in large plants, and since 1933 the come-back in small plants has not been so great as the increase in the number of large establishments.

An analysis was also made of the concentration of operations in large establishments—a concept which refers to the distribution of employment among the various establishments in an industry. The number of establishments employing one-half of the wage earners in an industry was taken as the measure of concentration of operations in big establishments.

In order that changes in the concentration of operations in the various industries might be appraised, two measures of concentration were developed. The first measure, which was called the absolute index, was based on the actual number of establishments required to account for half the wage earners in each industry. The second measure, which was called the proportionate index, was based on the proportion of the total number of establishments which was required to account for half the wage earners in each industry.

The establishments in each industry were arrayed according to the number of wage earners employed by each, and the number of the largest establishments required to account for half the total wage earners was thus determined. This figure was calculated for seven different years throughout the period from 1914 to 1937, inclusive, and for 195 industries for which comparable data were available from the Census of Manufactures. For ease in comparison the figures were converted to an index with 1914 as the base. In this form an increase in the absolute index from one period to another meant that more establishments were necessary to account for half the workers and, thus, that concentration had decreased. A final step was thus necessary in the calcu-

lation of the indexes in order that they would reflect directly the changes in concentration. This involved the calculation of the reciprocal of the indexes for each year. The absolute index of concentration used in this study, then, was the reciprocal of the index representing the actual number of establishments employing half the workers. The proportionate index of concentration was calculated in the same manner.

Concentration of operations in terms of establishments is a measure of the extent to which the business of an industry was done in a small number of its largest plants, or conversely, how evenly it was spread over the various establishments in the industry. Growth of concentration refers to the expansion of some units at the expense of others. Concentration increases when the growth in size of establishments, as measured by the number of wage earners employed, is among the larger establishments and decreases when the growth in size is among the smaller establishments. There are, of course, various combinations of circumstances which account for increases or decreases in concentration.

In measuring the growth or decline of concentration over a period of time, it is important to remember that a good deal depends upon the degree of concentration in the base year. If the degree of concentration was exceedingly high in the base year, the same relative growth or decline in concentration may not be so significant as if the degree of concentration were low at the outset.

When this sort of analysis is applied to the general manufacturing data, the most surprising fact is the high degree of establishment concentration in 1914. A total of 5,950 establishments, or only 3.4 percent of all establishments, employed half the wage earners in manufacturing in that year.



CHART II.—Absolute index and proportionate index of concentration for all industries, 1914-37.

While changes in concentration since 1914 have been comparatively small, concentration has nevertheless exceeded this amount in every year for which there are data. The fluctuations in the absolute and proportionate indexes of concentration are shown graphically in chart II. Both indexes rose sharply in 1919, dropped in 1921, rose somewhat in 1923, and exhibited comparatively little change from 1923 to 1929. Although the fluctuations in the two indexes were not of equal amplitude, the direction of change was approximately the same until 1929. From 1929 to 1933, however, there was a precipitous decline in the proportionate index and a sizable increase in the absolute index of concentration. This movement in opposite directions by the two indexes during the depression was caused by the fact that the decline in the total number of establishments was even greater than the decline in the number of large establishments employing half the wage earners.

From the 1933 level the absolute index declined slightly in 1935 and again in 1937 while the proportionate index advanced abruptly in 1935 and then dropped somewhat with the absolute index in 1937. The point seems to be that the depression reduced the number of enterprises necessary to employ one-half the workers, but did not reduce it as rapidly as the reduction in all establishments. The recovery, on the other hand, increased the number necessary to include one-half the workers, but less rapidly than the increase in smaller establishments.

Nearly all of the 25 industries with an exceptionally low degree of concentration throughout the entire period were relatively small, while most of the industries with an exceptionally high degree of concentration during the period were relatively large. Eight of these industries employed more than 100,000 wage earners—motor-vehicle bodies and parts, ship and boat building, newspaper and periodical printing and publishing, electrical machinery, cigars and cigarettes, bread and other bakery products, rubber tires and tubes and other rubber goods except boots and shoes, and wholesale meat packing. The patterns of fluctuation in the extent of concentration among the individual industries, however, differed widely, and generalizations are difficult.

The growth or decline of concentration of operations in the largest establishments of an industry should not be confused with either the growth or decline in total employment or the growth or decline in size of establishment. Employment in the petroleum-refining industry, for example, increased from 25,400 in 1914 to 83,200 in 1937. The total number of establishments doubled and the average number of wage earners per establishment increased from 144 to 228. The growth, however, was chiefly in the size of the smaller establishment. The number of establishments employing half the workers increased from 9 to 21, and the percentage of establishments employing half the workers increased from 5.1 to 5.8. The absolute index of concentration thus declined from 100 in 1914 to 43 in 1937 and the proportionate index declined from 100 to 88.

There is evidence, however, that concentration of operations in very large establishments declines when a relatively small, highly concentrated industry expands. In general, the 37 industries for which at least a 50-percent decline was recorded in the absolute index from 1914 to 1937 were characterized by the above attributes. The screw-machine products and wood-screws industry, for example, employed 8,071 wage earners in 70 establishments in 1914, and 21,287 wage earn-

ers in 311 establishments in 1937. In 1914 three of the 70 establishments employed half the workers and, in 1937, 19 of the 311 establishments employed half the workers. Thus, the absolute index declined from 100 to 16 and the proportionate index declined from 100 to 70.

Most of the 28 industries for which at least a 100-percent increase was recorded in the absolute index from 1914 to 1937 were characterized by a relatively low degree of concentration in 1914 and by a reduction in total employment during the 23-year period. The piano industry, for example, employed 23,861 persons in 242 establishments in 1914 and 5,698 persons in 38 establishments in 1937. In 1914 the 30 largest establishments in the industry employed half the workers and in 1937 four establishments employed half the workers. Thus the absolute index increased from 100 in 1914 to 750 in 1937 and the proportionate index increased from 100 to 109.

Of the 20 industries for which at least a 50-percent increase in the proportionate index was recorded, however, most were characterized by a relatively low degree of concentration at the outset but 16 experienced expansion in total employment. The aircraft and parts industry, for example, employed only 162 persons in 12 establishments in 1914 and 24,003 persons in 92 establishments in 1937. In 1914 half the wage earners were employed in two plants, or 17 percent of all the establishments, and in 1937 half the workers were employed in 5 plants, or 5.4 percent of all establishments. Thus, while the absolute index therefore declined, the proportionate index increased from 100 in 1914 to 315 in 1937.

It should be emphasized that no one characteristic nor even any combination of characteristics was invariably associated with increasing or decreasing concentration of operations as measured by either the absolute or proportionate indexes. Differences arose from industry to industry according to special circumstances affecting production in each industry. For manufacturing as a whole, however, these measures support the conclusions suggested in the analysis of size of establishments—that the tendency toward dominance by a small number of larger establishments is increasing.

CENTRAL-OFFICE CONTROL IN MANUFACTURING

Expansion and growth in size have been common to most phases of our economic life. They are particularly significant in the manufacturing branch of the economy. Here, improvements in machine technology and in the techniques of management and administration have made possible the organization of large masses of men, machinery, and raw materials under central control. Attending these advances of a more technical nature, there have been developments in the field of business organization which have facilitated the concentration of large aggregates of capital under unified control. In many instances, the areas of influence and control have grown so large that they play an important role in economic behavior. An appraisal of the extent of multiplant operations in manufacturing is the subject matter of this section.

The problem of measuring the extent and the nature of integration among manufacturing enterprises and of appraising the structure of manufacturing operations might be approached from any one of its

numerous aspects. The financial relations and lines of control among enterprises might be investigated, or consideration might be given to the informal and less tangible forms of effecting control, such as communities of interest, common banking connections, gentlemen's agreements, etc. The field of inquiry in T. N. E. C. Monograph No. 27 and the remarks which follow here are limited to an analysis of operating aggregates in manufacturing for the year 1937 in terms of one of the simplest and most obvious forms, namely, the central-office group. In the terminology of the Bureau of the Census, upon whose records the findings are based, a central-office company exists when two or more establishments or plants are operated by a central administrative office.⁴ Manifestly, a central-office concern may operate plants in nonmanufacturing lines, and to the extent that this is true, the ramifications of the operations of multiplant concerns as cited here are understated. For example, large oil companies extend their activities from the production and transportation of the crude oil, through the refining processes, and into the field of distribution. Only the refining or manufacturing branch, however, came within the purview of the original study.

The extent of this multiplant operation is indicated by the fact that there were 5,625 central-office groups active in manufacturing during 1937. These central-office groups comprised only 3.8 percent of the total number of manufacturing concerns or companies reporting to the Bureau of the Census in that year. Their significance in the entire factory system, however, is indicated by the fact that they employed 51 percent of the total number of wage earners and paid 55 percent of the total wage bill. Furthermore, the value of products of establishments under central-office management constituted 61 percent of the total value of products in manufacturing, and the value added by manufacture in such establishments was 56 percent of the total value added by manufacture.

During the last decade, central-office operations have increased in relative importance. These multiunit concerns, as distinguished from single-plant or independent companies, employed 48 percent of the wage earners in 1929, produced 54 percent of the total value output, and accounted for 50 percent of the total value added by manufacture.⁵ Although a comparison of the 1929 percentages with those for 1937 cannot be made with precise accuracy because of change in coverage and in methods of reporting in the two census periods, the higher ratios in 1937 nevertheless furnish conclusive evidence of the changing organization of control manufacturing.

That the tendency toward integration as exemplified by the central-office type of organization has extended to practically the entire field of manufacturing is clearly brought out by the fact that of the 351 industries separately distinguished by the Bureau of the Census in 1937 there were only 15 industries⁶ in which multiunit concerns were not active. These few industries were relatively unimportant economically, since in terms of wage earners, wage payments, and value

⁴ The term "central office" is also employed when a single establishment is operated by an office located elsewhere than at the plant itself. These single-plant central offices, however, have not been included, since the interest here is in plural or multiunit concerns only.

⁵ See Census of Manufactures, 1929, vol. I, p. 95.

⁶ For a list of the industries in which no establishments were controlled by central offices, see Temporary National Economic Committee Monograph No. 27, *The Structure of Industry*, appendix B, Part II.

of products they made up in the aggregate less than 1 percent of the respective totals for all manufacturing. It is emphasized, however, that the extent of central-office control varied widely from industry to industry. In the blast-furnace products industry 98 percent of the total value of products was produced in central-office establishments, whereas in the fur goods industry the corresponding ratio was less than 1 percent.

Size and Diversity of Operations of Central-Office Companies.

A distribution of the 5,625 central offices according to the number of establishments operated reveals that over half of the central offices operated only two establishments and about four-fifths of the central offices operated either two, three, or four establishments. At the other extreme in size there were 11 central offices each of which operated 100 or more establishments and 28 central offices that operated 50 to 99 establishments. In one instance a single central office operated as many as 497 establishments.

Of the 166,794 manufacturing establishments recorded for the year 1937, only 25,699 establishments, or 15 percent, were controlled by central offices. The extent of the variation among the industry groups is shown in chart III. Central-office control of plants was highest among establishments operating in the petroleum and coal products industry group. Here, 48 percent of the total number of establishments were operated by central offices. The next highest concentration occurred in the chemicals and paper groups in which approximately 31 percent of the establishments were under central-office management. Greater than average concentration also occurred in the transportation equipment, rubber products, stone, clay, and glass products, food products, and iron and steel groups. The percentages shown were based upon groups of related industries and thus necessarily obscure the varying degrees of control which undoubtedly existed among establishments classified in individual industries within the group.

In the printing and publishing industries group, only 4 percent of the active establishments were operated by central offices. This low percentage may be accounted for by the inherent nature of the activities included in this group. Although included in the Census of Manufactures, printing and publishing can hardly be considered manufacturing in the ordinary meaning of the word; thus comparisons with other and more strictly manufacturing industries are of questionable value. While there were a few large multiplant units in these industries, the great majority of concerns were under local and individual management or were large single-unit enterprises.

The analysis of the size of central offices as measured by the number of establishments operated raises a question concerning the nature of central-office companies. Do they tend toward specialization by operating several establishments in similar lines, or is there a diversity of interest involving the operation of plants in different lines of activity? Generally speaking, the greater the number of establishments operated by a central office, the more likely was the central office to spread its operations among several industries. Of the total number of central offices active in manufacturing during 1937, there were 3,574 central offices, or 64 percent, which operated establishments in but one manufacturing industry (see chart IV). In view of

the fact that over half of the central offices operated but two establishments, this high proportion of simple or single-industry central-office concerns⁷ is to be expected. In all manufacturing, there were only 34 central offices that operated in 10 or more industries. One, however, operated plants classified in 25 census industries. It should be realized that the term "industry"⁸ is here used in the meaning employed by the Bureau of the Census. That is, there is some grouping of commodities and processes under a single industry title.

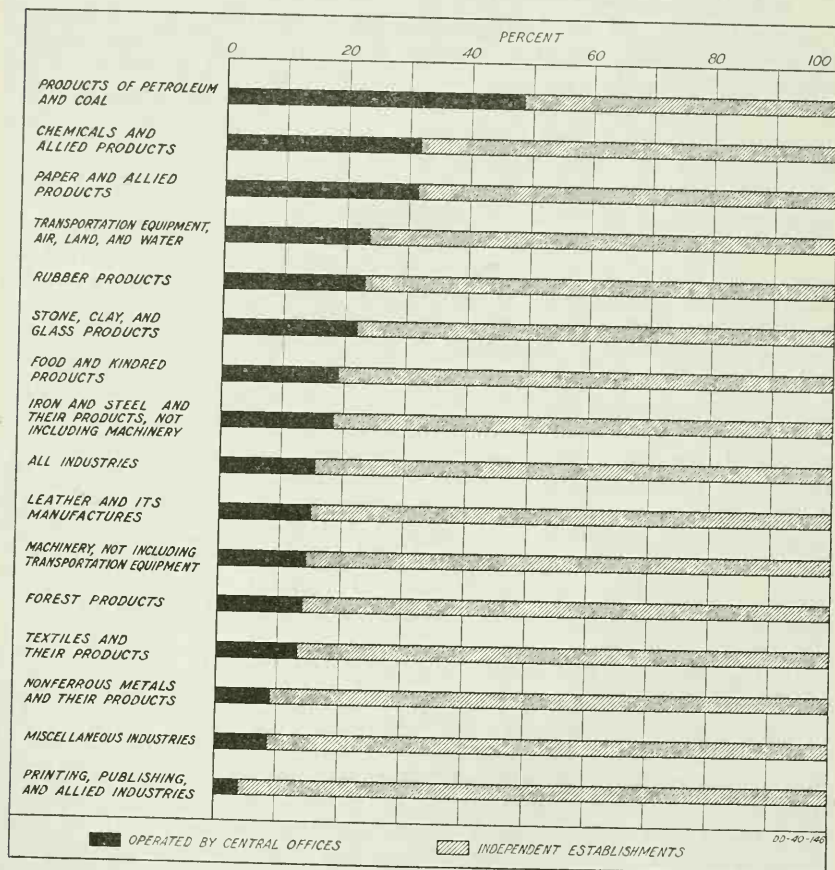


CHART III.—Percentage of total number of establishments operated by central offices and by independents, by industry groups, 1937.

Areas and Measures of the Concentration of Central-Office Control.

The size of central-office companies in terms of the number of establishments operated is not especially revealing of the extent or degree of control over employment opportunities, or over the rates of supply of commodities on the market which these central-office groups operate. For information with respect to these and other

⁷ For a discussion of the simple central-office type of organization, see *ibid.* ch. IV, Part II.

⁸ The definition of a census industry may be found on pp. 5 and 6 of the *Census of Manufactures, 1937*, and the implications of this definition on the study are examined at some length in *Temporary National Economic Committee Monograph No. 27*, ch. I, Part II.

phases of the problems of concentration, it is necessary to extend the investigation to other measures of size such as the number of wage earners, amount of wages paid, value of products, and value added by manufacture.

As heretofore stated, manufacturing establishments under central-office management employed somewhat over half of the total number of wage earners in all manufacturing in 1937 (nearly four and a half million workers) and paid 55 percent of the total wage bill (over five and a half billion dollars). Central-office control of activities tended to be more prevalent in certain types of industries than in others. The variation in the scale of central-office operations among the several industry groups in terms of the average number of wage earners per establishment is shown in chart V. In the petroleum and coal products industry group, central-office establishments employed 90 percent of the total number of wage earners and paid 91 percent of the wage bill for the group. Considerably more than average concentration was also present in the transportation equipment, chemicals, rubber products, and iron and steel groups. At the other extreme, only 21 percent of the wage earners in the printing and publishing group and 33 percent of those in the forest products industries were employed in central-office establishments. The proportion which wages paid in central-office establishments bears to the total wage bill of all establishments in the various industry groups is, of course, very closely related to the percentage of all wage earners in central-office plants.

As an indicator of the significance marketwise of central-office companies, value of products affords a better, and perhaps the best available test of the concentration of control effected by central-office management. The use of this value of product measure, however, has certain limitations in the evaluation of the significance of central-office operations. Both a vertically integrated and non-integrated concern may have equal value of products and thus may be equally significant in the market, but the value added by the vertically integrated concern will be much larger as more of the stages of manufacturing or processing of a commodity toward the final finished good are counted in the total for that concern than for the non-integrated company.

Almost 90 percent of the value of products in the petroleum and coal group and 88 percent in the transportation equipment group were produced in establishments controlled by central offices. The proportions of the total value of products accounted for by central-office establishments in the nonferrous metals, iron and steel, chemicals, and rubber products groups were closely clustered between 70 and 74 percent. In contradistinction to these high ratios, the contribution of central-office establishments to the total value of products of the printing and publishing group was only 24 percent. Less than average contributions were also recorded by central-office establishments in the forest products and textiles groups—37 percent and 40 percent of the totals for the groups, respectively.

The high percentage of the total value of products accounted for by central-office establishments in certain industry groups affords no a priori basis for assuming lack of competition. On the con-

trary, competition may be present among the central-office companies active in the groups. For example, there were 66 central offices whose principal activity (measured in terms of the value of products) was in the petroleum and coal products group and 91 central offices were predominantly active in the transportation

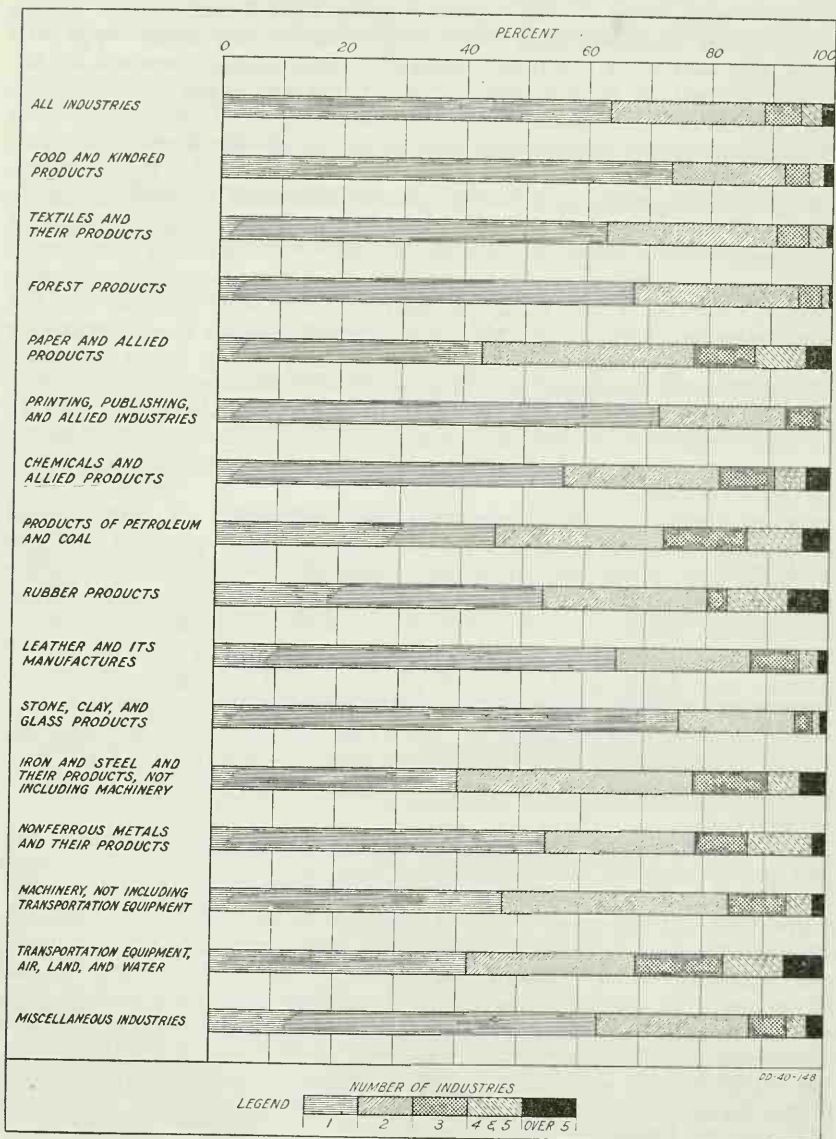


CHART IV.—Percentage distribution of central-office companies according to number of manufacturing industries in which establishments are operated, by industry groups, 1937.

equipment group.⁹ These data indicate, however, that certain favorable circumstances led to the grouping of establishments under a central office as the typical form of organization in these groups.

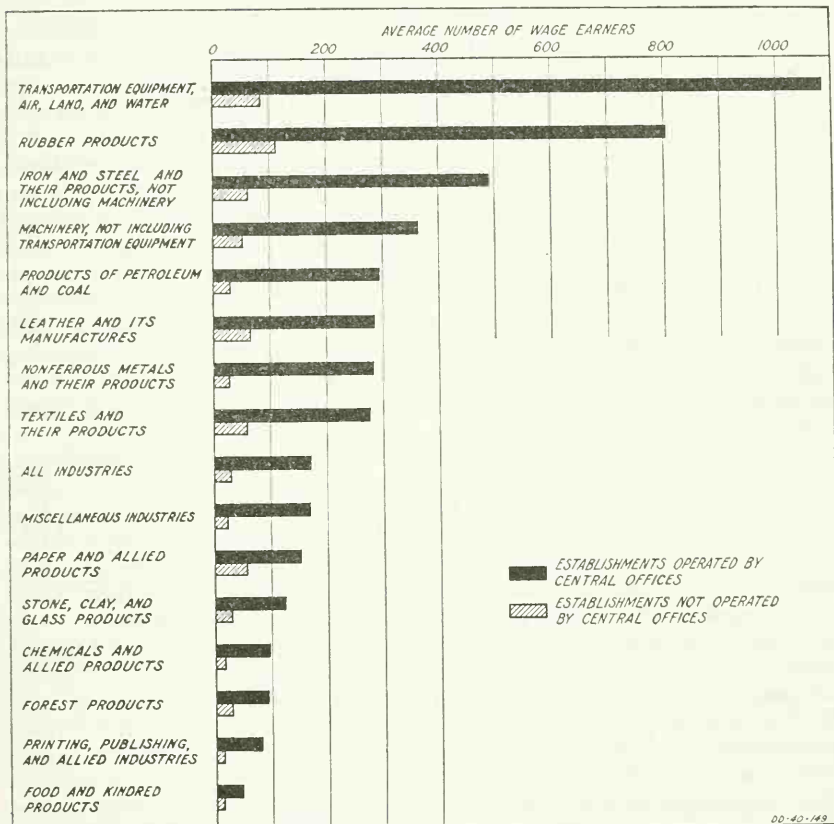


CHART V.—Average number of wage earners in establishments operated by central offices and in independently operated establishments, by industry groups, 1937.

The value added by manufacture is obtained by subtracting the cost of materials, containers, fuel, purchased energy, etc., from the value of products. These data thus afford a measure of the net contribution of manufacturing operations to the national product. On the basis of this criterion the areas and degree of concentration of central-office control coincide rather closely with those when disclosed by the use of such measures as wage earners, wages paid, and value of products. More than four-fifths of the total value added by manufacture in the petroleum and coal products group and in the transportation equipment group was contributed by central-office establishments. Corre-

⁹ For a distribution of central offices according to the census industry groups in which they were predominantly active in 1937, see Temporary National Economic Committee Monograph No. 27, "The Structure of Industry," Part II, table 1. The tendency for members of the "largest 50 manufacturing company group" to bunch in certain lines of activity is indicated at a later point in this analysis.

sponding ratios in the rubber products, chemical, and iron and steel groups were 71 percent, 70 percent, and 68 percent, respectively. The lowest percentages accounted for by central-office plants were in the printing and publishing, forest products, and textiles industry groups.

Central-Office Establishments Versus Independent Establishments.

It will be recalled that only 15 percent of the total number of manufacturing establishments were under central-office management, according to the Census of Manufactures for 1937. Thus, our factory system is composed largely of numerous independent or single-unit enterprises. Not all independent plants are small nor do all combinations signify "big business." The size of the enterprise varies with the inherent nature of the industry. In the manufacture of unstandardized products, of products with regional markets, and of commodities with limited demand, there is a tendency for the small enterprise to predominate. It has already been demonstrated that by specific measures, such as wage earners, wage payments, value of products, etc., central-office companies accounted for more than half of the total manufacturing operations. At this point, the size of the average central-office establishment as compared with that of the average independent establishment merits some comment.

Since central-office companies controlled a comparatively small percentage of the total number of manufacturing establishments in 1937 but employed more than half of the total number of wage earners, it is at once apparent that employment in the average central-office establishment was on a considerably larger scale than in the average independent plant. For the manufacturing industries as a whole, there were almost 6 times as many workers per central-office plant as there were per independent plant. Variations in employment in the two types of plants are more forcibly demonstrated by industry-group comparisons. Average employment in central-office establishments in the transportation equipment industries was 13 times that in independent establishments in this same group, and in both the nonferrous metals and petroleum and coal products groups workers in central-office establishments averaged 10 times those in single-plant enterprises. On the other hand, the number of wage earners per central-office establishment in the paper and forest products groups was only about 3 times as great as that in independent establishments.

With the exception of the textiles industry group, annual wages paid per worker tended to be higher in establishments under central-office control than in independents. In the rubber products group the excess was as high as 27 percent, while in the miscellaneous industries group it was only 3 percent. The divergence in the textile group from the general pattern may be accounted for in part by the variations in the methods of assembling the data by the Bureau of the Census and in part by the unique organization of the textile industry itself.

The higher average employment in a central-office establishment than that in an independent establishment carries with it the connotation of a higher average value added by manufacture and a higher average value of products. Thus, in comparing the two types of plants, these latter factors warrant little additional comment other than to point out several unusually wide variations in certain industry groups. In the nonferrous metals and transportation equipment groups, the value of products of the average central-

office establishment was over 20 times that of the average independent establishment. Measured in terms of the average value added by manufacture, however, the difference in size of central-office and independent establishments in these industry groups was not so pronounced. The least variation between the size of the average central-office plant and the average independent plant (in terms of both value of products and value added by manufacture) occurred in the paper and forest products industries where the ratio was only three to one.

The higher output per wage earner is a significant characteristic of central-office establishments. In establishments controlled by central offices, the average value added by manufacture per wage earner was \$3,190 in 1937 as contrasted with \$2,670 in independent units. The average wage paid per wage earner in central-office establishments was \$1,280 in 1937, whereas the average wage paid per wage earner in independently operated concerns was \$1,080. Thus, while the production per wage earner in central-office plants was 19.5 percent higher than in independent plants, the average wage paid per worker was 18.5 percent higher in the former type of establishment. These observations, of course, are subject to limitations arising from inconsistencies in methods of classification and reporting and from unusual circumstances present in one type of plant but not in the other.

The Role of the Largest Manufacturing Companies.

In the foregoing discussion the concentration of control in manufacturing was measured in terms of the significance of central-office operations in the total factory system. A further manifestation of the degree of control is that reflected in the relationship of the activities of the largest companies to those of all manufacturing concerns. For example, how important are the operations of the largest 50, the largest 100, or the largest 200 companies?¹⁰ This may be indicated briefly on the basis of fundamental overall data concerning employment, wage payments, value of output, etc.

Although the largest 50 companies represented less than one-tenth of one percent of all manufacturing companies operating in 1937, convincing evidence of their major role is afforded by the fact that they produced 28 percent of the total value of products and accounted for 20 percent of the total value added by manufacture. Furthermore, this group of companies employed nearly one-sixth of all wage earners in factories and paid over one-fifth of the total wages. From these data, it is apparent that wages paid by very large companies averaged considerably higher than those for manufacturing concerns generally.

The 50 companies manufactured products classified in 176 of the 351 census industries throughout all 15 industry groups, but their predominant activity (measured by value of products) tended to be concentrated in a few general lines. Ten of the companies were predominantly active in the iron and steel group, seven in the food

¹⁰ All of the largest 50 companies were central-office concerns; the 100- and 200-company groups, however, included three and eight independent companies, respectively. For an extended discussion of the product structures of large manufacturing enterprises, see Temporary National Economic Committee Monograph No. 27, "The Structure of Industry," Part VI; a summary of this discussion is presented in the latter part of the next section of this chapter.

and in the petroleum and coal products groups, and five in the transportation equipment group, etc. To some extent, therefore, or in some products at least, these big corporations were competing with each other.

Since all of the 50 largest companies in 1937 were under central-office control, the degree of effective concentration within the central-office type of organization may be expressed by a comparison of the average size of this group of very large companies with the average size of the remaining 5,575 central-office concerns operating in that year. Although the largest 50 companies averaged 57 establishments, each in contrast with only 4 establishments controlled by the latter companies, differences in size are even more conspicuous when consideration is given to other measures. On the average, each large company employed 52 times as many workers and paid out approximately 70 times as much in wages as the smaller central-office companies. In terms of value of output and value added by manufacture, the large companies averaged 92 and 64 times, respectively, the size of other central-office concerns. These average figures, of course, cover enormous variations in size of the 50 and the 5,575 groups. The wider difference in company size-patterns when viewed from the standpoint of the value of output may be accounted for largely by the higher average cost of materials and related items utilized by the large companies which, of course, is reflected in the value of output. Specifically, the average cost of materials, supplies, fuel, etc., to the typical concern included among the largest 50 companies was more than 100 times as large as that for other central-office organizations.

The largest 100 and the largest 200 companies in 1937 produced 34 percent and 41 percent, respectively, of the total value of products and 26 and 32 percent of the total value added by manufacture. Wage earners employed by the 100-company group represented 21 percent of all wage earners in comparison with 26 percent for the 200-company group. In terms of wages, the largest 100 companies paid 27 percent of the total wage bill, whereas the proportion paid by the largest 200 companies was 33 percent. The value added by manufacture per wage earner did not vary greatly for the 50-, 100-, and 200-company groups, averaging approximately \$3,600 in each case. The corresponding amount for all manufacturing companies, however, was somewhat below \$3,000.

PRODUCT CONCENTRATION

In the preceding sections the physical and organizational aspects of manufacturing activity were examined. These establishments and central-office companies are the operating units—the means—but the ends of the productive efforts in these units are the products bought and sold in the market. While the concentration of manufacturing operations in large establishments and the concentration of production in a few large firms are significant measures of economic control for some purposes, concentration in terms of products is a much more important concept in an analysis of the workings of a capitalistic price economy.

Industrial enterprises produce and distribute products in accordance with an intricate system of price calculations. Products are the ends, industrial enterprises are the means, and prices are the

guides by which resources are allocated. Furthermore, through the interrelations of prices a scale of values is established and, in response to this demand, decisions are made as to what and how much of the thousands of different products are to be produced. If concentration in the control of output of a product frustrates or impedes the free working of the price system, diversions and dislocations result all along the line. If resources are put to some use where their value output in that use is less than in some other use or if resources devoted to any particular use are not used up to the point where their value output is maximized, waste results and the national well-being is cut down accordingly. The maladjustments arising in part at least out of the obstacles to adjustment toward economic equilibrium imposed by the monopolistic or quasi-monopolistic exercise of concentrated control over the output of products take the form of idle men and idle machines.

The analysis which follows is concerned solely with an objective study of the framework of control. We are concerned only with a description of the extent to which the output of products is controlled by a few firms or by many. In those situations where three or four producers control the output of a product there is a potentially greater opportunity for the exercise of that control for monopoly (or oligopoly) gains, while in those situations where many firms are active in the production of a particular product in a particular market the possibility of exercising monopoly power is much less. Theoretically, one of the requirements of a free or purely competitive market is a sufficient number of buyers and sellers in the market so that no one buyer or seller is in a position to affect prices sufficiently by changing his own volume of purchases or production to make this a factor in formulating his own policies. There is no need, of course, that their numbers be infinite.¹¹ No account is taken in this study of the number of buyers of the various products, but it is recognized that this is an important consideration in the study of price behavior. Neither is any account taken of instances in which monopoly power is exercised by agreement.

It is easier to effect collusions, understandings, or agreements among a few producers than among many, but mutual understandings among numerous producers are not uncommon. Insofar as concentration of control is affected by these methods, its extent is not fully revealed by this analysis.¹² To that degree, then, the range of effective concentration of control is understated. The number of cases in which concentration of control is high by the measure developed here is sufficiently large, however, to afford some indication of the behavior of products produced under conditions of concentrated control.

The Concentration of Production in Manufacturing.

The findings of T. N. E. C. Monograph No. 27, Part V, The Concentration of Production in Manufacturing, are based on product data as distinguished in the Census of Manufactures for 1937. A cross-section sample of 1,807 manufactured products was analyzed. This sample was selected in such a manner that it presented a comprehensive overall picture of the situation existing in the entire manufacturing segment of the economy. The products analyzed accounted for slightly less

¹¹ Edward Chamberlin, *The Theory of Monopolistic Competition*, Harvard University Press, Cambridge, 1933, p. 7.

¹² For a discussion of other methods of control, see ch. I *supra*, and ch. IV *infra*.

than one-half of the total number of census-distinguished products and their aggregate value made up more than one-half the total value of all manufactured products. The sample covered all the products listed in 117 census industries (with only minor exceptions), and these industries were selected from all industry groups except the printing and publishing group.

The concentration in the production of each of these products is expressed as a proportion (percentage) of the total United States value of each product accounted for by the output of the leading four producers of that product. This measure of concentration in the production of census products is called the concentration ratio. It should be noted that the concentration ratio for each product was computed on a company basis, not on an establishment basis. Thus, the production of a product in various establishments operated by a common ownership was aggregated to ascertain the company's total output of a product. This measure of concentration represents only the control exercised by companies and subsidiaries in which they have a majority stock ownership. No account is taken of those many other types of relationship which bring companies together into operating unity—cases in which control is actually established or enhanced by agreements, collusion, conspiracies or "understandings" among the producers.

Distribution of the number and value of products by concentration ratios.—Approximately one-half of the analyzed products had concentration ratios above 75 percent. This means that for one-half of the 1,807 products the leading four manufacturers of those products accounted for 75 percent or more of the total United States output. Further, three-fourths of the total number of products were produced under such conditions of control that the leading four producers accounted for one-half or more of the total United States output. The distributions of the number and value of all analyzed products by concentration ratio classes are presented in chart VI.

In terms of the extremes, about 27 percent of all the products had concentration ratios above 90 percent, while only 5 percent of all the products had concentration ratios below 25 percent and only one product had a concentration ratio below 5 percent. Thus, for all the analyzed products there was a significant degree of concentration. The extent of the concentration and the effectiveness with which that concentration may be used for controlling price and production policies of individual products varies with the institutional conditions surrounding the production and marketing of the product and with the distribution and number of the remaining producers.

In contrast with the preponderant number of products occurring in the upper concentration classes, a somewhat higher percentage of the aggregate value of the products was accounted for by products in the middle concentration range. One-fifth of the total value of all analyzed products was accounted for by products with concentration ratios below 35 percent, while only one-tenth of the number of products had concentration ratios below 35 percent. Or again, the value of products with concentration ratios less than 60 percent made up more than one-half the total value of products analyzed, but only one-third of the total number of products had concentration ratios less than 60 percent. In the high concentration levels, almost

20 percent of the total value of products analyzed may be accounted for by those items which had concentration ratios higher than 90 percent, while 27 percent of the number of products had concentration ratios above 90 percent. The outstanding characteristic of the distribution of the number and value is, thus, the larger proportion of the number of products falling in the upper concentration ranges and the larger proportion of the value of products appearing in the middle concentration range. This means that, in general, those products which were relatively important valuewise in the economy were produced under conditions of less than average concentration.

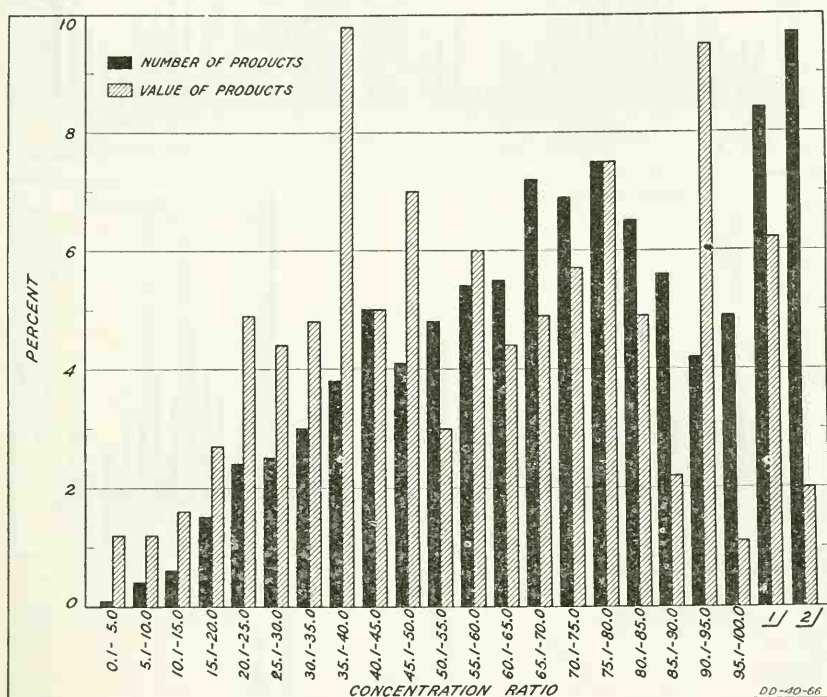


CHART VI.—Distribution of number of products and value of products by concentration ratio classes, all industry groups combined, 1937.

¹ Withheld to avoid disclosures among the leading four companies.

² Withheld to avoid disclosures among the remaining companies. There is not necessarily a disclosure among the four companies.

The overall picture of the distribution of the number and value of products by concentration classes conceals wide divergence in the distributions among the various census industry groups, as may be seen in charts VII-a and VII-b. Approximately 42 percent of the total number of products in the food group and 38 percent of the number of items in the forest products, in the paper products, and in the petroleum products groups had concentration ratios below 50 percent. On the other hand, only 5 percent of the total number of products analyzed in the rubber and in the machinery groups had concentration ratios below 50 percent. Furthermore, the distribution patterns of the various industry groups were almost as widely divergent in the case of the value of products as in that of the number of products.

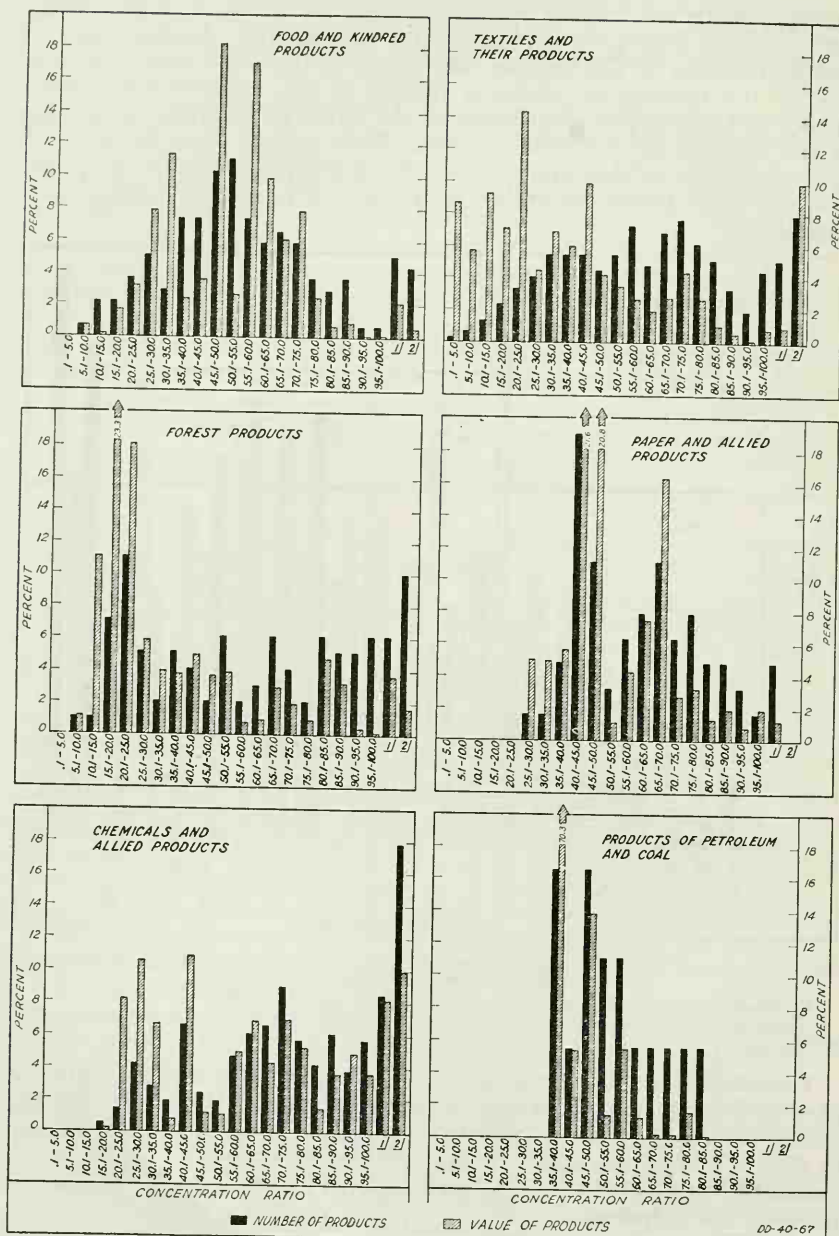


CHART VII-a.—Distribution of number of products and value of products by concentration ratio classes, by industry groups, 1937.

¹ Withheld to avoid disclosures among the leading four companies.

² Withheld to avoid disclosures among the remaining companies. There is not necessarily a disclosure among the four companies.

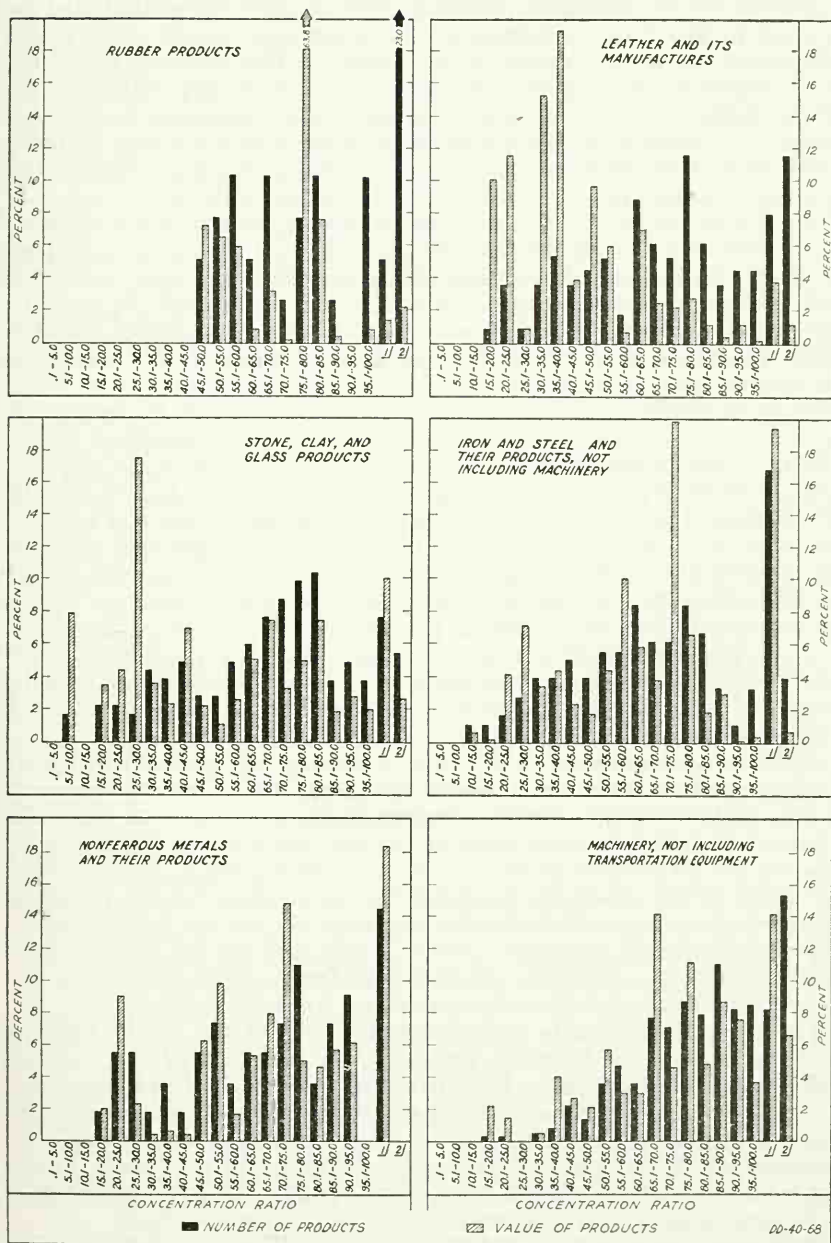


CHART VII-b.—Distribution of number of products and value of products by concentration ratio classes, by industry groups, 1937.

¹ Withheld to avoid disclosures among the leading four companies.

² Withheld to avoid disclosures among the remaining companies. There is not necessarily a disclosure among the four companies.

Relation of concentration to number of companies.—It might be assumed a priori that in cases where products were manufactured by a large number of companies the proportion of the total contributed by any one or any four companies would be smaller than in cases where only a few companies produced the product. The evidence assembled in the study tends to support this assumption, but only within rather broad limits. If the number of companies was small, the inverse relation was rather close, but for those products manufactured by more than 100 concerns there was no apparent relation between the number of companies and the concentration ratios for the products.

There appeared to be only a slight inverse relation between the concentration ratio of a product and the total United States value of that product. In general this means that products with high value and with low value may have been produced under either high or low concentration. As was indicated earlier, there was a tendency for the more important products valuewise to have concentration ratios in the middle range.

The role of the production of the leader.—To say that 80 percent of the output of a product was accounted for by the production of the leading 4 producers raises another question. How was the production of the four leaders distributed? Did one account for 23 percent of the total and the other 3 producers 19 percent each, did one account for 50 percent and the other 3 producers 10 percent each, or did 1 account for 77 percent and the 3 producers 1 percent each? An inspection of the data indicates a tendency for the percent which the output of the leader bears to the total United States value to increase as the concentration ratio increases. Thus, in the cases of those products with high concentration ratios, the leading producer usually accounted for a high proportion of the total value of production of these products.

Of the 1,807 analyzed products there were only 20 products in which the output of the leading producer accounted for as low as 5 percent of the United States total.¹³ Approximately one-half of the total number of products were those in which the leading producer accounted for 30 percent or less of the total value, while 64 percent of the value of all products analyzed was accounted for by products in which the output of the leader made up 20 percent or less of the total value of each product. At the upper end of the distribution, there were 64 products in which the leader's output accounted for more than 70 percent of the United States total.

There was considerable variation in the importance of the leading producer among the industry groups. The majority of the number and value of products in the food, in the textiles, in the forest products, in the paper, and in the petroleum groups were products in which the leading producer contributed a relatively small percentage of the total United States value. On the other hand, in the machinery group and in the chemicals group the leading producers accounted for a high percentage of the total value of the individual products.

Frequency with which leaders appeared.—Were the leading producers different for each product analyzed or did some companies appear as one of the leading producers of many commodities? A total

¹³ Distributions of the number and value of products by percentage of total value accounted for by the leading producer are presented in Temporary National Economic Committee Monograph No. 27; *The Structure of Industry*, Part V, tables 3 and 4.

of 3,752 individual companies appeared as one of the leading 4 producers of at least 1 of the 1,807 products included in the study. About three-fifths of these companies were classified by the Bureau of the Census as independents or single-plant companies, while the remaining concerns were central-office companies or multiple-plant enterprises. Although the number of central-office companies made up only 3.8 percent of all concerns reporting to the Bureau of the Census, these multiunit concerns accounted for 38 percent of the total number of companies appearing as leading manufacturers of products covered in T. N. E. C. Monograph No. 27.

One company¹⁴ appeared among the leading 4 producers of 99 different products, a second company made 82 appearances, and a third made 72 appearances. By far the greater proportion of the companies appeared as leading producers in only a few products. There were 2,656 companies which manufactured a sufficient value of an individual product to place them among the leading 4 producers of that item. Approximately a fifth of the leading producers made two or three appearances, there being 547 companies and 222 companies at these levels, respectively.

There was a marked tendency for a company making many appearances to have those appearances in first or second place, while those companies making only a few appearances tended to have those appearances in third or fourth place. Of the 2,656 companies which appeared as one of the leading producers of a single product, 488 were in first place, and 807 in fourth place. At the opposite extreme the 1 company appearing as a leader in the manufacture of 99 products made 65 of its appearances in first place and only 5 in fourth place.

Since central-office companies tended to be the largest producers,¹⁵ a considerably larger number of first-place appearances were made by them than by independent concerns at each appearance level with the exception of the 1-appearance level. At the 1-appearance level, 35 percent of the total number of company-appearances were made by central-office companies and 65 percent by independents; at the 11-appearance level, however, the comparable ratios were 86 and 14 percent respectively.

Relation of concentration to various product characteristics.—That a large number of products are manufactured under conditions of relatively high concentration has already been emphasized. A further step in the inquiry is concerned with the character of the commodities that are produced under such circumstances and the varying degrees of control associated with different economic attributes.¹⁶ In order that these relationships might be appraised, the 1,807 census products which formed the nucleus of the study of product concentration were classified on the basis of (1) type of immediate purchaser (producer or consumer); (2) type of ultimate user (producer or consumer); (3) degree of durability (nondurable, semidurable, or durable); (4) degree of fabrication (semimanufactured or finished); (5) type of market

¹⁴ This company actually manufactured 302 census products but only 142 of them were included in the 1,807 items analyzed in the study.

¹⁵ Central-office companies represented 3.8 percent of the number of manufacturing concerns in 1937, but they accounted for 61.1 percent of the value of all manufactured products (see Temporary National Economic Committee Monograph No. 27, Part II, The Integration of Manufacturing Operations).

¹⁶ For a fuller discussion of this subject and an explanation of the methods of classification of products, see *ibid.* Part V, ch. III, and appendix D.

(national or regional); (6) source of raw material (agriculture, mines, or forests); (7) construction materials; and (8) producers' supplies.

Certain general observations predicated upon the foregoing type of analysis may be made. Products purchased by producers tended to be manufactured under conditions of appreciably higher concentration than goods purchased by consumers. As a matter of fact, in 1937 approximately 80 percent of the number of items destined to be purchased by producers had concentration ratios above 50 percent, whereas only 66 percent of the consumer items were in these high concentration brackets. In terms of value, however, the concentration patterns for the two classes of products were of the same general conformation, and in both cases the more important products valuewise had relatively lower concentration ratios. Products to be used ultimately by producers were likewise manufactured under conditions of considerably higher concentration of control than goods to be used ultimately by consumers.

At this point it is important to realize that these broad generalizations obscure the varying degrees of concentration among commodities which represent the output of different types of industries but which otherwise possess the same economic characteristics. For example, only 9 percent of the value of tomatoes canned in 1937 was accounted for by the leading four producers of this product, whereas the leading four producers of passenger-car tires manufactured 77 percent of the total value of such goods. Both of these products are consumer items but are products of distinctly different industrial groups and have distinctly different marketing patterns.

Concentration in production varies with the degree of durability of the product. Goods whose use extends over a number of years were produced under conditions of higher concentration than the semi-durable and nondurable products, the levels of concentration tapering off as the products are less durable in nature. The durable goods in the high concentration ranges consist largely of items which are purchased by producers.

No striking differences are apparent in the concentration patterns of semimanufactured and finished goods. If raw materials were taken into account, considerable variations would undoubtedly be noted. This analysis, however, relates only to products which have undergone transformation in one or more manufacturing processes.

With reference to the relation of type of market and to concentration, it is apparent that various factors tend to fix market limits for certain commodities. Perishable goods or goods which cannot be transported with facility cannot be marketed on a national scale. In the case of a product marketed regionally, the output may be highly controlled, but this fact would not be revealed in concentration calculations based upon Nation-wide production data. The drawing of inferences with respect to the type of market in relation to concentration is, therefore, hardly justified in these summary findings. Despite the understatement of actual market concentration, however, well over a third of the 231 "regional" products included in the basic study of product concentration had national concentration ratios greater than 60 percent.

When attention is focused upon the source of raw material entering the manufactured goods, quite different patterns of concentration are evident. Products derived from agricultural sources tended to bunch

heavily in the low concentration classes, whereas those produced from minerals had high concentration ratios. Products which were predominantly manufactured from forest materials were more evenly distributed among the concentration classes.¹⁷ Fifty-seven percent of the value of products from agricultural sources and only 31 percent of the products fabricated from minerals had concentration ratios in 1937 of less than 50 percent.

Construction materials and producers' supplies exhibited somewhat similar concentration patterns, both in terms of number and of value. In each case most of the items were produced under conditions of relatively high concentration, although for both types of products the items produced under high concentration were somewhat less important on the basis of value than those produced under lesser degrees of concentration. It should be kept in mind that construction materials are distributed in considerable measure in regional markets. Thus, the limitations mentioned in connection with the distributions of products by type of market apply in this instance as well.

The concentration pattern in 1935 and in 1937.—A particular phase of the study of concentration centers upon changes in the pattern of the distribution of control from one period to another. In order that further light might be thrown on this subject an investigation was made of changes in concentration, in quantity produced, and in the average realized price of products from 1935 to 1937.¹⁸ To what extent did the concentration picture change over the period? If shifts in concentration ratios of products occurred, were the increases or decreases in certain types of products more pronounced than in others, or, again, were the changes in certain lines of activity more significant than in others? Were changes in concentration paralleled by variations in quantity produced and by changes in average realized prices?

A study of changes in the concentration ratios for 392 products which were identical in 1935 and 1937 provides factual information on the actual courses of concentration in the 2-year period. The overall picture of the shifts in concentration experienced by these products between 1935 and 1937 indicates no "wholesale" movement toward an increase or decrease in concentration ratios. The pattern of change is shown in chart VIII. Almost two-thirds of the products showed "no change" or an increase or decrease of less than 10 percent in their concentration ratios. Approximately 8 percent of the products registered more than a 20-percent increase and about 7 percent experienced a decrease of more than 20 percent. Thus it may be said that the changes in concentration ratios are essentially random in nature. This was certainly true for the particular interval under study, but it probably holds true for longer periods of time. The reasons underlying this position center in the fact that each product appears to have its own particular set of distinct and separate factors which determine its behavior. Many of these factors may be formulated in general terms and may be applied to all sections of the manufacturing process. Nevertheless, they affect each product at different times in varying degrees, so that for a given period they form a unique set of conditions for each product or for a group of closely related products.

Products of like nature did not exhibit a similar degree or direction

¹⁷ For basic data, see *ibid.*, Part V, chart 14, and appendix D, table 8D.

¹⁸ *Ibid.*, Part V, ch. IV.

of change in their concentration ratios between 1935 and 1937. An examination of a selected list of products reveals a wide variety of changes among products in the same industry, among competing products, among products fulfilling the same types of wants, among products purchased by the same group of users, etc. Furthermore, products which increased in concentration did not show materially different characteristics from those products which decreased in concentration.

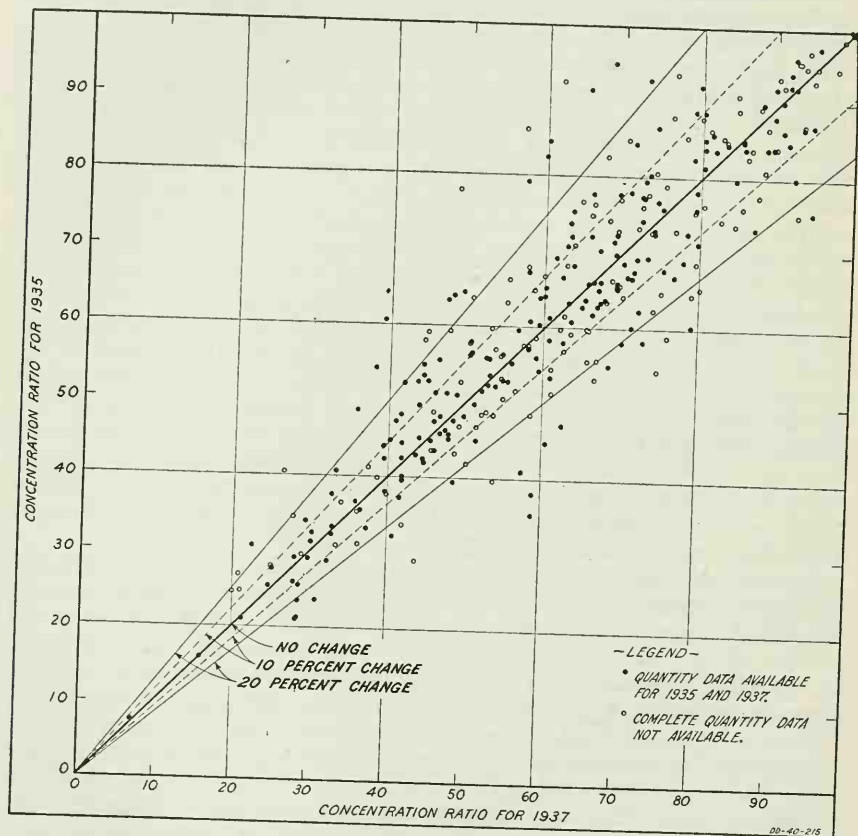


CHART VIII.—Relation between concentration ratios in 1935 and 1937.

When attention is directed toward the various characteristics of products, it is apparent that products of the same type experienced both increases and decreases in concentration of about the same degree. Thus it cannot be said, for example, that consumers' goods tended to increase in concentration while producers' goods tended to decrease or vice versa. Nor did products, which in many cases were manufactured by the same companies, show consistent changes in their concentration ratios.

All these investigations point to the fact that over the 1935-37 period, during which there was a marked increase in output of manufactured products, the distribution of the changes in concentration was symmetrical. There is, therefore, no indicated conclusion that

the product structure of manufacturing was subject to wide shifts over the short run. Furthermore, the changes which did occur were random in nature.

An investigation of changes in concentration and changes in the volume of output and in the average realized price¹⁹ of products from 1935 to 1937 reveals no significant correlation between the variables. Products for which the quantity produced increased or decreased were equally likely to have been products for which the percentage of supply controlled by the largest four companies either increased or decreased. Likewise, the increases and decreases in average realized price over the 2-year period were evenly divided between products with positive and negative changes in concentration. This randomness may be due to the shortness of the period under study.

The Concentration of Production in Mining.

The discussion of product concentration up to this point has been concerned solely with manufactured products. Production in the field of mining is likewise characterized by a high degree of concentration. This topic will be commented upon here only briefly, since basic data relating to the subject are of a more or less fragmentary nature. The available material is sufficient, however, to justify the observation that in many lines mineral output is predominantly controlled by a relatively small number of producers.²⁰ The statistics quoted below are, for the most part, in terms of the proportion of the total value of output of a specific mineral accounted for by the leading four producers of that mineral. Thus, they are comparable to the concentration ratios widely used in the preceding analysis of manufactured products. They relate to the year 1935, however, and not to 1937.

Among the products of mines for which concentration data are readily available, potash and bauxite give evidence of the highest degree of concentration. In the case of potash, four producers accounted for the entire output in 1935. More than one-half the supply for domestic use in that year, however, came from imports. In the same year, the leading three producers of bauxite were responsible for 93 percent of the total value output of that product. The production of ingot aluminum, however, was even more concentrated since the reduction of bauxite to aluminum was under the control of a single company. Other minerals having a high degree of concentration in 1935 were marble with a concentration ratio of 84 percent; gypsum, 80 percent; copper, 78 percent; mercury, 71 percent; and iron ore, 64 percent. Low concentration was apparent in the production of sand and gravel, limestone, bituminous coal, basalt, and granite, the concentration ratios for these items ranging from 10 to 18 percent.

The importance of the mineral fuels, petroleum and coal, is indicated by the fact that in recent years they have constituted approximately half of the total value of mineral production in the United States. In the production of these important items, concentration

¹⁹ The nature and limitations of the average-realized-price measure are set forth in detail in *ibid.*, Part V, ch. IV.

²⁰ Basic concentration data for selected mineral products, according to reports prepared for the Temporary National Economic Committee by the Bureau of Mines, are presented in *ibid.*, Part V, Appendix F.

was relatively low. The leading four oil-producing companies accounted for one-fifth of the total value of crude oil output in 1935. It must be understood that the concentration ratios here noted are in terms of "production" of the basic mineral, and that concentration in subsequent processes (such as manufacturing, transportation, and marketing) in which integrated companies undoubtedly engage is not measured here. The leading four bituminous coal companies produced only 11 percent of the total value of the product, but in the case of anthracite the largest four operators accounted for about half of the total value. Concentration ratios for gold, silver, and zinc were 31, 41, and 46 percent, respectively.

The Product Structures of the Largest Fifty Manufacturing Companies.

The role played by the largest 50 manufacturing companies in all manufacturing was examined in a preceding section. There it was noted that these 50 companies, all of which were central-office companies, accounted for 16 percent of the average number of wage earners employed during 1937, paid 21 percent of the entire wage bill, and produced a value of output equal to approximately 28 percent of the total in all manufacturing. In addition to this overall picture of the significance of these large companies, there is the basic problem of measuring or describing the product composition of each company's output and of analyzing the extent of control which each of these companies had over the supply of the individual products it produced. This section is concerned then with measuring (1) the importance to the corporations of each product which they manufactured, and (2) the extent to which these big corporations controlled the supply of the products made by them.

The basic data used in this section were assembled from unpublished records compiled in connection with the Census of Manufactures for 1937.²¹ The data as released by the Bureau of the Census included the following information for each of the largest 50 companies: The number of establishments operated by each company, the number of products manufactured in each establishment, the number of industries in which the establishments were classified, the number of products manufactured by each company, the number of industries in which the products were classified, and for each product (1) the percentage relationship between the value of each product and the total value of products of the company, and (2) the percentage relationship between the company's aggregate value of the product and the total United States value of that product. The latter figure is referred to in the study as the United States concentration percentage or more simply the concentration percentage for a product. This concept should not be confused with the concentration ratio used in the preceding section. (The concentration ratio measures the proportion of the total domestic output of a product accounted for by the leading four producers of that product, while the concentration percentage measures the proportion of the total domestic output of a product accounted for by one producer.) Since data of this nature are the result of original tabulations and may not be found elsewhere, the

²¹ See Temporary National Economic Committee Monograph No. 27, Part VI, The Product Structure of Large Corporations.

ensuing discussion consists more or less of epitomizing the major findings of this basic study.

The extent of the operations of the largest 50 manufacturing companies.—In general, the operations of these 50 companies were extended through many lines of activity. Altogether, these companies manufactured 2,043 distinct census products classified in 176 of the 351 census industries scattered throughout all 15 of the industry groups designated by the Bureau of the Census. The number of industries in which each company was operating, however, varied rather widely. One company operated establishments which were classified in 25 census industries, while the operations of 4 other companies were confined to 2 industries. A better picture of the diverse nature of the activities of these companies is afforded by the computation of the number of industries in which the products manufactured by them were classified.²² One of the companies actually manufactured products which were classified in 39 census industries. Furthermore, 27 of the 50 companies manufactured products classified in at least 10 different industries, while only 15 of the companies operated establishments classified in 10 or more industries. It should be recognized, however, that both the major and the minor products were produced in the same establishments and in part, at least, the minor products may have resulted from the processing of byproducts or waste materials.

The number of establishments operated by a concern depends partly upon the total number of products manufactured by the company and partly upon the nature of these products. These 50 companies operated from 7 to 497 establishments each, but half of the companies operated 25 or fewer establishments. In general, there was a tendency for the concerns to organize their activity in such a manner that only a few products were manufactured in each establishment. At least one-fourth of the establishments operated by them produced only one product and three-fourths of the establishments produced not more than five products.

There was considerable variation in the actual number of products manufactured by each of the 50 companies, as may be seen in chart IX.²³

At the extremes, 1 company manufactured only 6 products and 1 company manufactured a total of 302 products. Between these limits, the companies tended to cluster at the lower end of the range. Approximately three-fourths of the companies manufactured 100 or less products.

The importance to the individual company of each product manufactured.—The majority of the products manufactured by these large companies made relatively small contributions percentagewise to the total value of products of the companies. Conversely, the major portion of the total value of products of these companies was accounted for by the value contributions of relatively few products.

²² The Bureau of the Census classifies each establishment in the industry in which its major product is classified. The establishment may, however, produce one or more minor products classified in other industries. Thus, the number of industries in which a company's various products are classified may exceed the number of industries in which its establishments are classified.

²³ In charts IX, X, and XI the identity of each company is indicated by the same code letter. The assignment of letters was not related in any way to a particular company characteristic.

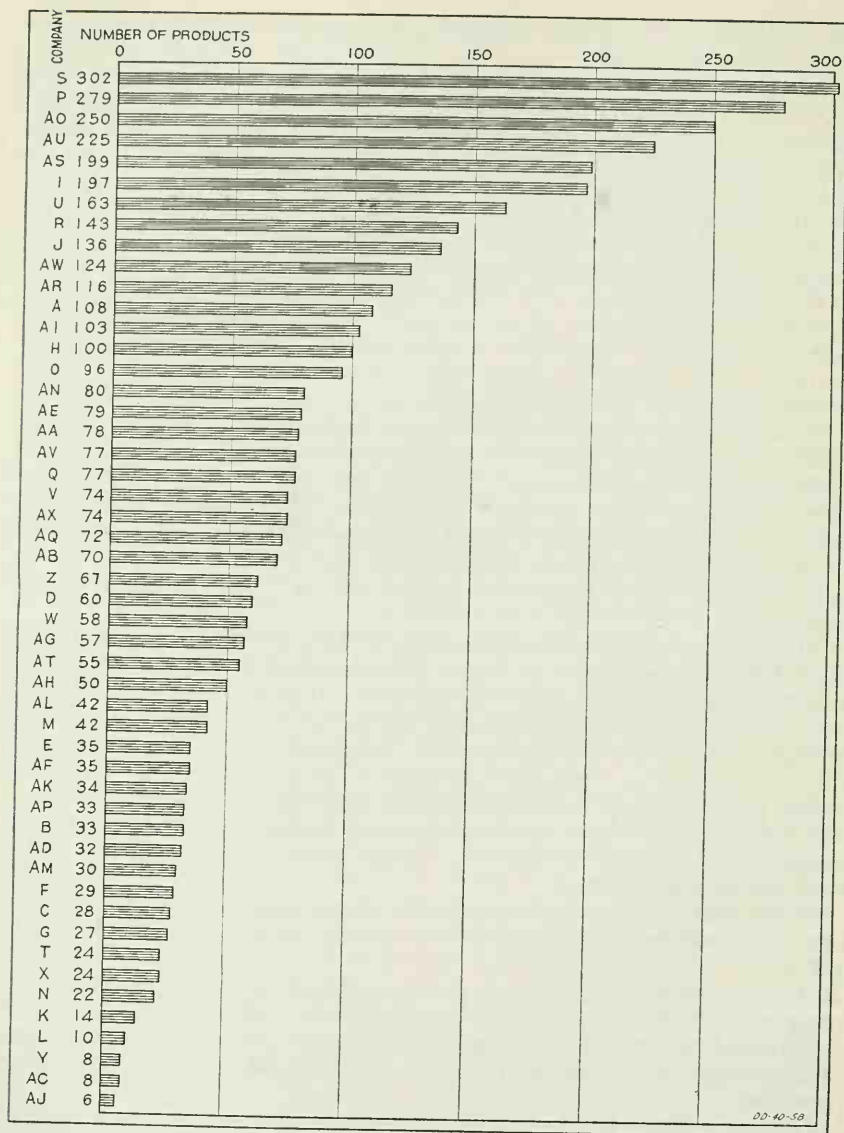


CHART IX.—Number of products manufactured by each of the largest 50 manufacturing companies, 1937.

Of the 2,043 distinct and separate census products manufactured by the largest 50 companies, almost one-half were produced by two or more of the 50 companies. If the number of products manufactured by each of the companies is merely cumulated, the 50 companies may be said to have manufactured 4,085 products. Of this total, there were 1,472 products, or 36 percent, which accounted individually for less than 0.1 percent of the total output of each company. Furthermore, there were 1,929 products which accounted for 0.1 to 1.0 percent of each company's total. In other words, 83.3 percent of all the products man-

ufactured by these 50 companies accounted individually for 1 percent or less of the company's total output and 94.7 percent of the total number of products manufactured accounted individually for 5 percent or less of each company's output. Stated on a company basis, at least four-fifths of the products manufactured by 45 of the 50 companies accounted individually for 5 percent or less of the total value of products of these companies.

On the other hand, these 50 companies tended to derive a very significant portion of their revenue from the sale of one or two major products. The percentage contribution of each product to the total value output of each of the companies is shown in chart X. At the extremes, the leading product of three of the companies contributed less than 10 percent of the total value output of each of the companies, while the leading product of three other companies contributed between 80 and 85 percent of the total value output of each of these companies. The leading product of 28 of the 50 companies, however, accounted for more than 25 percent of the total value of products of these companies. The aggregate contribution of the leading 5 products accounted for at least 25 percent of the value output of 49 of the 50 companies, at least 50 percent of the value output of 35 of the companies, and at least 75 percent of the value output of 20 of the companies.

The importance of the leading products in the output of each of the 50 companies may be judged also by the number of products necessary to make up selected percentages of the total value of products of the companies. In no case was it necessary to add more than six products to account for 25 percent of the value output of these companies. Fifty percent of the total value output of 47 of the companies was derived from 8 or fewer products and 75 percent of the total value output of 45 of the companies was derived from less than 20 products. Thirty of the companies derived 75 percent of their total value of products from 10 products or less.

In summary, then, these 50 companies were producing a large number of products, but derived the major portion of their value output from a comparatively small number of products.

Proportion of the total United States output of individual products accounted for by each company.—In the preceding paragraphs, the importance of each item in the product structure of each of these large corporations was evaluated in terms of the relative contribution of the individual product to the company's total value of products. In this section the output of each product of each company is measured against the total domestic output of the product. The data presented will help clarify the relationship between corporation size and concentration in the control of supply.

The product data were computed on a national basis, and the output of a given product by an individual company represents the aggregate production of that product in the various plants operated by the concern. To the extent that the market for any particular product was not national in scope the measure of concentration of control understates the true situation. As the Commerce study states, however, this limitation is not particularly important. For these large corporations to attain their size the major products manufactured by them must ipso facto be products for which there is an enormous mass demand derived from a large part of the population.

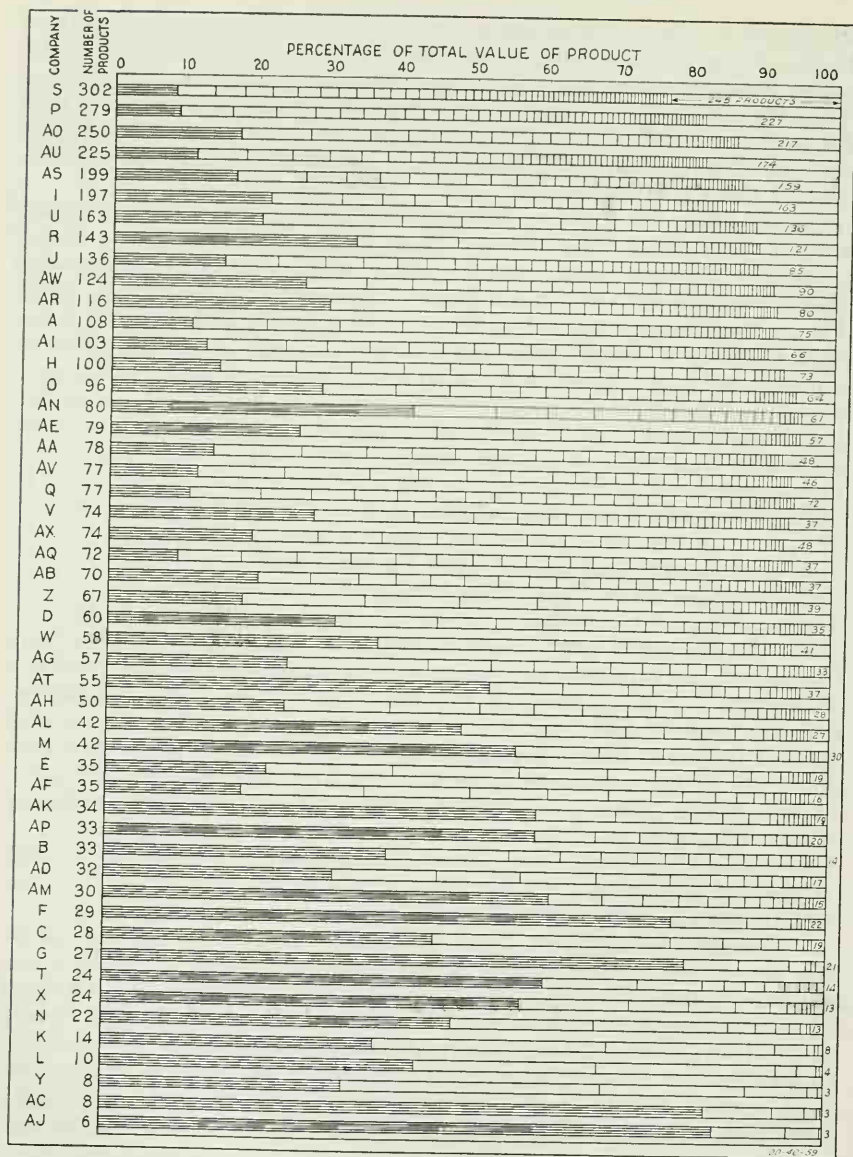


CHART X.—Percentage contribution of individual products to the total value of products of each of the largest 50 manufacturing companies, 1937.

NOTE.—The products grouped in the right-hand portion of each bar accounted individually for less than one-half of 1 percent of the company's total value of products.

The proportion of each company's output of each of its products to the total domestic production of those products (the concentration percentage) ranged from a truly infinitesimal figure for some products to 100 percent for others. The majority of the products, however, were those in which each company's output represented a relatively small proportion of the aggregate production. As was noted previ-

ously, if the number of census products produced by each of the 50 companies are added together, it is found that these companies manufactured 4,085 products (not all different). Forty-three percent of this number, or 1,758 products, were items in which the companies individually manufactured less than 5 percent of the total value of the product. Further, 58 percent of all the products were items in which each company's output amounted to 10 percent or less of the total.

In the upper concentration range there were 59 products for which the output of individual companies accounted for 95 to 100 percent of the total. Furthermore, about one-fifth of the total number of products were those for which the output of individual companies accounted for more than 25 percent of the total.

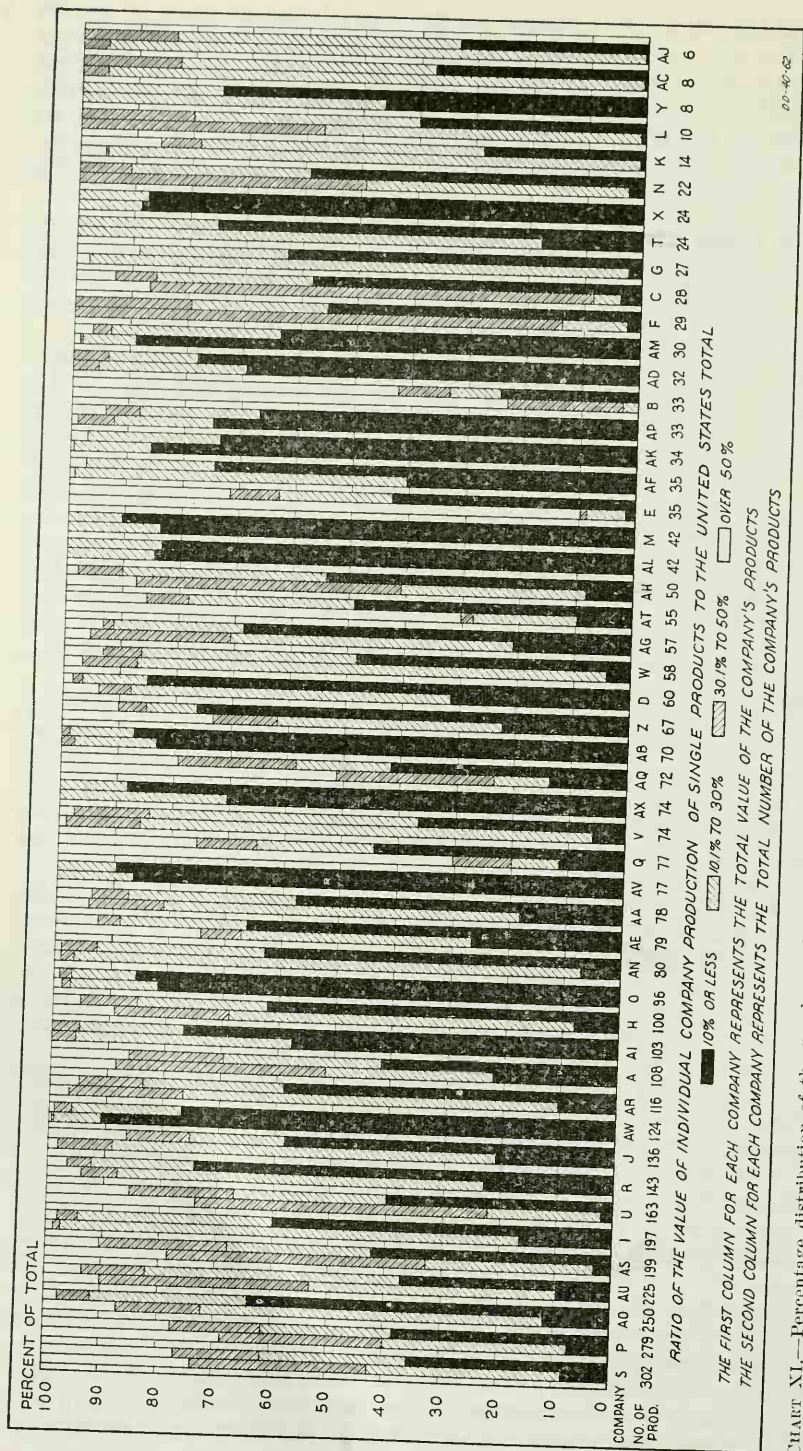
While the above figures apply to all of the products of the 50 companies taken together, the same generalizations hold for each of the companies considered separately. At the extremes, one company manufactured no product in which it accounted for as little as 5 percent of the United States total, while 80 to 85 percent of the products of another company fell in the "less than 5 percent" concentration class. In the first case the company manufactured only 10 products and in the latter case the company manufactured 42 products. About one-half of the products of one-half of the companies were manufactured under conditions such that the output of these particular products was less than 5 percent of the United States total. Approximately 60 percent of the products of half of the companies had concentration percentages of 10 percent or less.

Although the majority of the number of products manufactured by these 50 companies were products with low concentration percentages, the greatest portion of the aggregate value of the output of these companies was derived from products with higher concentration percentages. While 43 percent of the total number of products were those in which the individual company output was 5 percent or less of the United States total, the value of these products made up only 6.3 percent of the total value of products of the companies. The relative number and value of products were quite similar in the next two concentration classes, 5.1 to 10.0 and 10.1 to 15.0 percent, but for products with concentration percentages above 15 percent the value greatly exceeded the number. In fact, only one-third of the number of products fell in this range, 15.1 to 100.0 percent, but these products accounted for more than two-thirds of the total value of all the products.

In general, then, those products in which the company proportion of the domestic total was low were the relatively less important products valuwewise, while the most important products were those in which the output of individual companies represented an important portion of the United States total.

A picture of the relationship between the number and value of products manufactured by each company which accounted for specified percentages of the United States total is shown in chart XI.

Relation between the importance of each product to each company and the importance of each product in the domestic total.—In order that the interrelation between the importance of a product to the company and its importance in the United States might be made to stand out more sharply, it was necessary to set up certain arbitrary limits by which "importance" could be measured. In the study upon which this



section is based, products representing 5 percent or less of the company's total value of products were considered unimportant to the company, and products with a concentration percentage of 10 percent or less were considered unimportant in the total domestic production of those products.

These limits, of course, were quite arbitrary. The decision of just what percentage of the total should be selected to divide the important from the unimportant could not be made on the basis of any hard and fast criteria but was subject in each case to particular and unique conditions of production surrounding each product. One company's output of a product may have constituted 10 percent of the total production of that product and yet have been relatively unimportant, if there were a number of other concerns each producing an equal or larger portion of the total, while another company may have been manufacturing 10 percent of the total of a product and have been a dominant factor in the field if the balance of the output was accounted for by a large number of producers whose individual contributions to the total were very small. The same general sort of reasoning applies, of course, to the selection of 5 percent of the company's total as a breaking point.

More than half the products manufactured by the largest 50 companies were items which were relatively unimportant to the individual companies and were also items in which each company's output was relatively unimportant in the United States total. Of the products which were important valuewise to the companies (218 out of the total of 4,085), approximately three-fourths were also products in which the individual company's output represented an important share of the total domestic output. Of the products which were unimportant valuewise to the companies (3,867 out of the total of 4,085), about 40 percent were important in the total. There were 42 products in which the individual company output accounted for the entire domestic production, and in every case these products were unimportant to the companies.

The role of the largest 50 manufacturing companies as leading producers.—A further indication of the market position of these corporations is afforded by an examination of the number of instances in which they were "leading producers" of their products. In the first part of this section, the total value output of 1,807 census products accounted for by the leading 4 producers of each of those products was presented. From this material it was possible to express in terms of another measure the importance or significance of the largest 50 companies in the whole picture of manufacturing. Two lines of investigation were pursued: (1) The significance of the largest 50 companies (as a group) among all the leading producers of these analyzed products, and (2) the frequency with which each company appeared as a leading producer of its analyzed products.

Of the 1,807 census products analyzed, there were 3,752 different companies which appeared as either the largest or the second largest producer of most of the product. Among these companies were 47 of the largest 50 companies in the United States.²⁴

²⁴ In selecting the products to be included in Part V of Temporary National Economic Committee Monograph No. 27, the products classified in approximately two-thirds of the census industries were not analyzed. Two of the 50 companies had all of their operations confined to these omitted industries, while the remaining company produced as by-products small quantities of 6 of the analyzed products.

Though numbering only 1 percent of all the leaders, these 47 companies accounted for 11.8 percent of all the appearances and 18.2 percent of all the appearances in first place. Further, they accounted for 13.1 percent of all the appearances in products with concentration ratios greater than 75 percent, and 21.3 percent of all the first-place appearances among these products with high concentration ratios.

Not all of the analyzed products were manufactured by the largest 50 companies and not all of the products of the largest 50 companies were included. Specifically, only 40 percent of all the products made by these 50 companies were included in the products analyzed in the earlier study. One of the largest 50 companies appeared as a leading producer of only one product, while another of the companies appeared as a leading producer of 99 different analyzed products. In general, however, these large companies appeared among the leaders in a number of different products. Approximately one-half of the companies appeared as a leading producer of 10 or more products. Half of the companies not only appeared a number of times, but their appearances represented more than half of their opportunities for appearance. That is to say, they appeared as a leading producer of more than half of the products which they manufactured and which were also analyzed for concentration. Furthermore, a majority of the companies had more than 60 percent of their appearances in first and second place. Thus, they were either the largest or the second largest producer of most of the products in which they led at all. Finally, a majority of their appearances were in products with concentration ratios greater than 75 percent.

CHAPTER III

MANAGED INDUSTRIAL PRICES¹

The behavior of prices is of primary importance in our system of free enterprise. In the absence of any authoritarian controls of production or consumption, it is the price structure—the interrelationships of thousands and thousands of prices that prevail in the community—which determines how much shall be spent and for what, who shall have things and how much, and what shall be produced and by whom. Prices guide human beings “to make and accept myriads of decisions—about the way in which they shall spend their income, what they shall do for a living, how they shall invest their savings, and how much they shall produce.”²

From day to day the behavior of prices exercises a far-reaching influence upon the rate of business activity and the level of production and employment. In the long run, prices play a major role in determining how our human and material resources are expended, where production shall be increased and where reduced, which industries shall grow and which shall decline.

In a large sense, therefore, it is the price system—or more accurately the system of prices—that is in good part responsible for the way in which the economy works, for its success or failure in achieving and maintaining a satisfactory level of employment and of production, in providing an adequate living standard for the population, and for its ability rapidly and effectively to meet the demands of a grave national emergency. This responsibility must in turn be shared by those business executives who are in a position to influence appreciably the prices of individual products which they buy or sell.

For the prices of a vast range of industrial commodities and even of some agricultural products are controlled to a material extent by the policy decisions of business executives acting individually or in concert. Unlike such products as wheat, over whose price no individual buyer or seller can exert any appreciable influence, the prices of such commodities as steel, aluminum, automobiles, cigarettes, and bread are all subject to a substantial degree of control by a limited number of executives in a few large companies. This is probably inevitable in any economy characterized by large-scale production and concentration of economic power.

It is inevitable, too, that the price policy decisions of businessmen are primarily directed toward improving the position of their individual

¹ This chapter was written by Saul Nelson, senior industrial economist, Bureau of Labor Statistics, Department of Labor, following which it was criticized by Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University, and Corwin D. Edwards, economic consultant, Department of Justice. Much of the material is based upon Temporary National Economic Committee hearings and monographs, especially Temporary National Economic Committee Monograph No. 1, *Price Behavior and Business Policy*, and Temporary National Economic Committee Monograph No. 5, *Industrial Wage Rates, Labor Costs, and Price Policies*.

² *Economic Problems in a Changing World*, edited by Willard L. Thorp, Farrar & Rinehart, New York, 1939, p. 240.

concerns. While this is a universal goal, different individuals are likely to adopt very different kinds of policies in striving to attain it. Thus, some business executives are far more conscious than others of the relationship between price and volume, and are consequently more willing to experiment with lower prices in an effort to increase sales, while others prefer to avoid the hazard of price reductions and are content with higher unit profits at smaller volume. Some businessmen accept the view that the best way of increasing sales is to keep prices as low as possible; others may prefer to seek business by spending large sums on advertising or by guaranteeing wide margins to the distributors of their products. Some executives are likely to base their decisions regarding prices primarily upon day-to-day considerations, following whichever course seems likely to yield an immediate increase in revenues, while others, taking a longer view, may prefer to sacrifice immediate profit possibilities in favor of a sustained volume of sales and profits over the years to come.

The actual price policies of business executives depend upon their decisions regarding these and a thousand other similar questions. The course of industrial prices reflects to a very material extent these business policy decisions, and they, in turn, reflect the backgrounds, preferences, prejudices, and abilities of the human beings who make them.

In the language of the Brookings Institution, the business executive who—

sets a price objective and directs a control mechanism toward the attainment of that goal * * * takes upon himself the responsibility for the standard of living for an ever larger proportion of our people. Much as he generally hates the phrase, he becomes the economic planner of our society, rather than the adapter of his personal affairs as best he can to a largely automatic price mechanism.³

This does not mean that price-making in industrial markets is a purely arbitrary process, nor that any individual business executive can freely determine the price of what he has to sell or buy. There is no single commodity and no single market in which such complete power exists. The objective factors of cost and of demand, and the availability of substitute products, set limits upon the freedom of price policy decisions. These limits will be very wide in a completely monopolized industry covering the economic area within which substitution is not possible, and they will be quite narrow in a highly competitive one, but they are always present.

Most businessmen constantly seek to extend these limits—to increase this area of discretion—and to have a freer hand in setting the prices of what they have to sell or to buy. From the point of view of society, any such extension of business control over prices beyond the limits inherent in modern technology is clearly undesirable, both because of the danger of entrusting such great power to fallible human beings, and because the profit motive can only be truly effective in expanding production and employment and in raising the standard of living when profits must be sought by increasing efficiency rather than by merely manipulating prices.

President Roosevelt in his message to Congress asking for the creation of the Temporary National Economic Committee expressed par-

³ Edwin G. Nourse and Horace B. Drury, *Industrial Price Policies and Economic Progress*, Brookings Institution, Washington, 1938, p. 254.

ticular concern with these efforts of businessmen to extend their control over prices, and with the consequences flowing from the way in which such control has been exercised in the past:

One of the primary causes of our present difficulties lies in the disappearance of price competition in many industrial fields, particularly in basic manufacture where concentrated economic power is most evident—and where rigid prices and fluctuating pay rolls are general.

Managed industrial prices mean fewer jobs * * *.

When prices are privately managed at levels above those which would be determined by free competition, everybody pays * * *.

* * * The combined effect of the monopolistic controls which each business group imposes for its own benefit inevitably destroys the buying power of the Nation as a whole.⁴

The problem of managed industrial prices was accordingly placed high on the list of the inquiries made by the Temporary National Economic Committee. T. N. E. C. Monograph No. 1 contains some of the research findings.⁵ Detailed case studies were also made, notably of prices in wartime,⁶ steel prices,⁷ copper prices,⁸ and of the prices of building materials.⁹ To try to summarize here the results obtained in all these inquiries is impossible because price problems are extraordinarily complicated and intertwined with all phases of economic activity.

Three aspects of the problem of managed industrial prices are treated here:

1. In what ways can businessmen exercise control over prices in industrial markets? How effective are these controls, and what are their inherent limitations?

2. What are the effects of managed industrial prices (a) on the severity of fluctuations in the volume of business and (b) on the level of national income and employment?

3. What types of action suggest themselves?

TYPES OF MARKET CONTROL

The variety of controls which exist in industrial markets is legion, ranging from outright monopoly or a smoothly working collusive agreement at one extreme to the indefinable elements of prestige, convenience, or personality, which yield the small producer in a highly competitive field some slight voice in charging more or less continuously a price a little above or below the prevailing market. The management of industrial prices shows, therefore, innumerable variations in scope and degree of effectiveness, in mechanisms utilized, and in the number of firms that have the "say-so."

The widest degree of control tends to exist in those rare instances in which one producer or seller controls the whole of the supply in a given industry or market. This sort of monopoly is enjoyed, for example, by the Climax Molybdenum Corporation, and to a lesser extent by the Aluminum Co. of America.¹⁰ Moreover, "almost as complete

⁴ S. Doc. 173, 75th Cong., 3d sess., pp. 4, 5.

⁵ Price Behavior and Business Policy, Part I by Nelson and Keim, Part II by Nelson, Part III by Nelson and Brown.

⁶ Hearings before the Temporary National Economic Committee, Part 21.

⁷ Ibid., Parts 19 and 20.

⁸ Ibid., Part 25.

⁹ Ibid., Part 11; Temporary National Economic Committee Monograph No. 8, Toward More Housing, by Peter A. Stone and R. Harold Denton; and cf. ch. XIII below.

¹⁰ Of course, there are many governmental monopolies, such as the post office. They are more numerous in other countries than in the United States.

a degree of control may be achieved through such devices as patent pools and rigid licensing arrangements, such as apparently prevail in the glass container and plaster-board industries." In such monopolies the "latitude in price policy formulation is limited only by the possibility that expenditures will be diverted to other products."¹¹

But while outright monopoly of this sort is rare, there are many industries composed of a very small number of large companies. In some instances, for example, in the sulphur industry, there may be only two firms. But more commonly 3 to 6 firms control 50 percent or more of the total output. The facts have been abundantly amplified by a detailed analysis of 1,807 commodities made for the T. N. E. C. by the Department of Commerce.¹²

It has been demonstrated rather conclusively that in closely knit industries of this kind the practical result, as far as the level and movement of prices is concerned, is not likely to vary much from what would occur for a single concern which controlled the total output. Such industries have been described in economic literature as "duopolies" or "oligopolies," the former term relating to a market in which only two large sellers operate, the latter to a small oligarchy of sellers.¹³

But even in the absence of such concentration of control, there is a wide variety of conditions under which the individual businessman can exercise a substantial voice in setting the price of his product. Some of these conditions are treated at length in Temporary National Economic Committee Monograph No. 1¹⁴ and Temporary National Economic Committee Monograph No. 21.¹⁵

One of the most important methods by which the individual business concern can achieve a substantial degree of control over prices is by differentiating its products from that of its rivals. It may be said in general that whenever buyers have come to prefer the product of any one seller to that of their rivals, that seller automatically acquires a substantial degree of freedom in fixing prices. This does not mean that there is anything inherently undesirable about such differentiation, especially when it reflects an effort on the part of the individual producer to place a better and more useful product upon the market. But buyer preference may be gained not only by offering an article superior in quality and content; it may also be gained in other ways in the absence of intrinsic differences.¹⁶ In consumer goods markets, for example, brand names and the effective use of advertising often establish such strong buyer preference that substantial price differentials may be maintained over long periods of time between products which are virtually identical physically. All that is important is the buyer's psychological appraisal; it is merely necessary that a substantial group of consumers believe that the product sold by Jones is better than that sold by Smith, whether or not such a belief is warranted.

In many cases this technique may yield a very high degree of control over prices. For example, the price of one widely advertised brand of

¹¹ Temporary National Economic Committee Monograph No. 1, p. 8. The reference here is to the control exercised by the Hartford-Empire Co. and by the United States Gypsum Corporation.

¹² See Temporary National Economic Committee Monograph No. 27 and ch. II *supra*.

¹³ Edward Chamberlin, *The Theory of Monopolistic Competition*, ch. III.

¹⁴ Part I, chs. I, III, IV.

¹⁵ *Competition and Monopoly in American Industry*, by Clair Wilcox.

¹⁶ Temporary National Economic Committee Monograph No. 1, pp. 6-7, 75-89; also Edward Chamberlin, *op. cit.*, ch. IV. See also hearings before the Temporary National Economic Committee, part 8.

men's shirts changed not at all during the 1929-33 depression, although the makers of less popular brands reduced their prices substantially. The retail price of one well-known brand of aspirin has been maintained at a minimum of 59 cents per 100 tablets for a number of years, although competing brands have been available during the same period for anywhere from 39 cents to as little as 8 cents per 100.¹⁷

At best, situations of this kind increase price rigidity because they free the individual manufacturer from having to follow all the ups and downs of the market; consumers will not switch from his brand to that of his rivals in the absence of a material difference in price. In the extreme case, however, the seller of a widely advertised brand may enjoy a position little different in its practical effects from the more conventional forms of monopoly. He can never entirely ignore the price policies of competitors selling similar articles, but this restriction is essentially the same as that imposed upon an outright monopoly by the availability of substitute products. Thus, a consumer may shift from one brand of shirt or face powder to another if the price differential is substantial, but industrial buyers also can and do shift from aluminum to copper or magnesium if the difference in cost is sufficiently great to warrant the change. In some cases, at least, the latitude yielded by the former type of control may be as wide as that accruing to the latter.

So far, product differentiation has been discussed in terms of finished consumer goods because it is in relation to products of this kind that differentiation is probably most effective. Most such goods, by their very nature, are difficult to standardize. Moreover, the individual consumer is rarely well enough informed technically to be able to translate with any real precision differences in quality, appearance, style, workmanship, or name into terms of dollars and cents.

Product differences are not confined, however, to consumer goods, since they are also an important factor in many producers' goods markets. Industrial buyers may be influenced to purchase from one seller rather than from another because of such elements as actual differences in quality and services or guaranties, and also by many other collateral circumstances such as intercorporate ties, reciprocal buying, etc. In one of the studies prepared for the Temporary National Economic Committee by the Bureau of Labor Statistics, for example, it was shown that a paper manufacturer had managed to acquire a fair degree of freedom in his pricing policies because of his ability to supply the needs of his customers promptly and because he had become accustomed to meeting their special requirements; a moderate difference in price, therefore, did not suffice to cause them to turn to his rivals.¹⁸

However, there are apparent limits to the extent to which a concern may achieve control over its prices by differentiating its products and its services from those of its competitors. There are many industries in which any effective differentiation is largely impractical. In view of these limits to the ability of any single company to fix prices to its liking, there have been innumerable and constant attempts on the part of businessmen in almost all lines to get together

¹⁷ These and many similar examples are described in Temporary National Economic Committee Monograph No. 1, Part I, ch. III. Further data with regard to drugs and cosmetics are also presented in Part 3, ch. II, of the same monograph, pp. 355-385.

¹⁸ Temporary National Economic Committee Monograph No. 5, Industrial Wage Rates, Labor Costs, and Price Policies, by Douglass V. Brown and others, p. 28.

in some way with regard to prices. The reasons for these efforts are obvious; there are few, if any, businessmen who are unreservedly willing to allow the prices of what they have to sell to be determined entirely by the impersonal forces of the market. This is particularly true during periods of declining demand when prices, if left to themselves, would rapidly fall to unprofitable levels.

The most obvious of these efforts to get together is outright collusion. The records of the Federal Trade Commission and the Department of Justice¹⁹ bear witness to the multitude of forms which such activity may take; it is no part of the present discussion to recount these in detail. However, there are many ways of getting together on prices which do not involve the more obvious forms of collusion. In many industries, for example, it is customary to allow some one concern, usually outstanding in size or in prestige, to initiate all changes in prices while its competitors consistently "follow the leader." Various conventional types of pricing practices such as basing point systems, zone systems, and "base price" systems render the maintenance of customs of this kind simple by making it possible for a single price quotation to determine automatically the prices of a considerable variety of products sold under a wide range of conditions. Open price systems which allow each concern to know exactly what its competitors are charging and uniform cost accounting systems whereby all concerns base their pricing policies upon identical or similar methods of calculations are also widely used to reduce the intensity of price competition.

In some cases, practices of this kind conceal more direct schemes for restraint of trade. For example, the following letter from the sales manager of a minor steel producer to the president of his corporation apparently describes a meeting of members of the industry at which prices were decided upon.

Mr. A. K. ANDREWS,
Footes Bay, Ontario, Canada.

Dear Mr. A. K.: It was not definitely decided until late last evening to put into effect for fourth quarter a one-price policy allowing the galvanized sheet price to remain at \$3.10 per 100 pounds for No. 24 gage base f. o. b. Pittsburgh. A few of the larger interests such as Weirton and Inland were in favor of reducing the price to \$3 base for No. 24 gage f. o. b. Pittsburgh but this was finally defeated and it was agreed to allow all prices to remain the same as now in effect.

The announcement of no further jobber allowance after October 1 will be made by Continental on Tuesday of next week after which all mills can announce likewise. We, of course, in the meantime will notify our people which no doubt will be conducive of causing an influx of jobber business for shipment prior to October 1.

It is my intention to discuss this with Mr. Little this morning so that we will be prepared to take care of the rush that we like others will no doubt have during the month of September.

I discussed the automotive situation with Neil Flora [secretary of the National Association of Flat Rolled Steel Manufacturers] last evening and he informed me that while some little tonnage was placed several weeks ago, nothing more has been done and that all the mills are holding firmly to their prices and are expecting that additional tonnages will have to be placed soon.²⁰

It should not be assumed that price uniformity among competitors necessarily involves collusion or even price leadership. Trade custom may often achieve the same end in highly competitive industries.

¹⁹ Summarized in Temporary National Economic Committee Monograph No. 21.

²⁰ Hearings before the Temporary National Economic Committee, Part 27, p. 14281.

The practice known as "price lining"²¹ is a case in point. There are many kinds of garments, for example, whose prices have been fixed at certain levels by custom; these levels are accepted by both buyers and sellers as virtually immutable, at least under ordinary circumstances, and sales emphasis necessarily shifts to elements other than price.

But as price uniformity may often be achieved without collusion, so collusive agreements may be manifested in ways other than in identical prices. In the building industry, for example, one or two producers often supply more than 90 percent of the brick, cement, tile, etc., in a particular area.²² These local groups frequently agree on price, sometimes establishing bid depositories²³ for that purpose, not by putting in identical bids but by rotating bids. In such instances there is managed diversity of price. There may even be price discrimination, the group consistently favoring one set of purchasers as opposed to another. Managed diversity may thus be as effective as managed uniformity in increasing the degree of control over prices enjoyed by business executives.

In some markets the balance of power is in the hands of buyers, rather than sellers. These buyers often make common cause against the sellers or suppliers. The purpose is to depress prices or keep them down, often to levels which cause acute distress to producers. Farmers in particular seem to have suffered. Thus, for example, investigations have shown that the "Big Four" in the meat-packing industry never fail to get about the same share of the livestock offerings, their respective percentages having varied hardly at all for many years.²⁴ Complaints have been made frequently of local buying combinations in numerous agricultural products, for example, milk,²⁵ various kinds of fruit, tomatoes, and cottonseed. Fishermen are also frequently confronted with such organized buying.²⁶ So are the sellers of scrap metal²⁷ and in some areas the producers of crude oil. According to one investigation, "crude prices are determined by the decisions of a few large purchasing companies."²⁸

The *modus operandi* of an effective buying combination can be briefly illustrated by the geographic price structure for cottonseed.

The producing territory—the Cotton Belt—was divided into a number of zones whose boundaries corresponded with the jurisdictions of the millers' trade associations. Within each of these zones the mills published the prices which they were willing to pay for cottonseed f. o. b. shipping point. * * * The maintenance of price uniformity at the shipping point means that each mill is bidding the same price for supplies at every point and that there is no incentive for the seller to deal with one mill rather than with another. This may lessen the likelihood of prices being bid up by competition among buyers. * * * The buyers of cottonseed—the cottonseed oil mills—are in general larger and more concentrated than are the sellers and are therefore in a position to exert a substantial influence over the prices which they pay for their raw material.²⁹

²¹ Temporary National Economic Committee Monograph No. 1, Part I, appendix B, pp. 242-250.

²² See Willard Thorp's testimony, Hearings before the Temporary National Economic Committee, Part 11, pp. 5171, pp. 5171-5235.

²³ Thurman Arnold, *ibid.*, pp. 5144-5162.

²⁴ See Hearings before the Temporary National Economic Committee, Part 25, Cartels, p. 12575, exhibit No. 2177; also an earlier investigation by the Federal Trade Commission, *Investigation of the Meat Packing Industry*, 1918-20.

²⁵ Hearings before the Temporary National Economic Committee, Part 5.

²⁶ Report of the Royal Commission on Price Spreads, Ottawa, Canada, 1935, p. 175 ff.; also National Recovery Administration, Division of Review, *The Fishery Industry*, Washington, 1936.

²⁷ Temporary National Economic Committee Monograph No. 1, p. 340.

²⁸ Federal Trade Commission, *Investigation of the Petroleum Industry, Prices, Profits, and Competition*, 1927, p. xix.

²⁹ Temporary National Economic Committee Monograph No. 1, p. 293.

In appraising the significance of all these devices for minimizing the impact of price competition whether in buying or in selling, and whether or not outright collusion be involved, it is important to accord due weight to the attitude of businessmen toward the problem. During the past 20 years, the philosophy that price competition is inexpedient and even somehow unethical has come to be very widely accepted in many business circles. There is little question that a substantial number of businessmen today take the position that competition should center largely upon such elements as quality, services, advertising, and the like, that is, upon aspects other than price, and that price-cutting for the purpose of obtaining a competitive advantage should be avoided rigorously.³⁰ Each firm is acutely conscious of the fact that if it cuts prices below the prevailing level it may break the market and that expansion beyond its "niche in the trade" will certainly arouse the resentment of its rivals and may mean going after higher cost and less profitable business. This furnishes a tremendous incentive to restrict output and uphold price in order to achieve maximum profits.

The belief that price competition should be avoided was clearly expressed in an interchange which occurred when the steel company executive referred to above³¹ was called upon to explain his letter by a member of the Temporary National Economic Committee.

Mr. O'CONNELL [Representing the committee]. In this case you followed on a price increase. Had you not followed Continental you would have been selling at a lower price.

Mr. DORENBUSCH. That is right.

Mr. O'CONNELL. Would that not have been competitive?

Mr. DORENBUSCH. I don't get the question.

Mr. O'CONNELL. Wouldn't that have been competitive to sell at a lower price? You indicated that it was competition that required you to some extent at least to follow Continental on the way up on the price increase. Would you not have been competitive had you either reduced your prices or kept them lower than Continental prices after this increase?

Mr. DORENBUSCH. I don't think so.

Mr. O'CONNELL. You don't?

Mr. DORENBUSCH. No.

Mr. O'CONNELL. Then competition to your mind is following someone else's prices.

Mr. DORENBUSCH. Well, that is the system that is in effect.³²

Obviously businessmen who accept this conception of a competitive price are unlikely to adopt price policies of the kind needed to broaden demand and increase production. Thus, according to a recent study by the Brookings Institution:

As the years have passed the necessity of progressive reductions as a means of expanding purchasing power and markets appears to have been forgotten, alike by business managers and economic statesmen. * * * What we regard as a serious abuse of the profits system and the institutions of private capital * * * [has] grown up in modern times. This is the tendency to centralize economic advantage, to protect existing business enterprises by protecting the price structure.³³

³⁰ See, for example, Charles R. Stevenson, "Price Control and the Allotment of Business," address delivered before the National Association of Cost Accountants, June 26, 1934. (Quoted in part in Temporary National Economic Committee Monograph No. 1, p. 61.)

³¹ See p. 72, *supra*.

³² Hearings before the Temporary National Economic Committee, Part 27, p. 14284.

³³ H. G. Moulton, *Income and Economic Progress*, Brookings Institution, Washington, 1935, pp. 140 and 162.

Prof. Frederick C. Mills, in the course of his empirical studies of price behavior since 1900 reached the conclusion that the immediate passing on to consumers (including buyers of capital goods) of the major part of the gains of increasing industrial productivity through reduced prices is essential to provide maximum diffusion of the enhanced purchasing power, so that it may be most promptly brought into contact with the released productive energies;³⁴ that such immediate utilization of the released productive forces by the enlarged purchasing power is the direct means to increased employment of productive resources and to improved living standards;³⁵ that in the period 1914-33 the major benefits of the rapidly increasing productivity in manufacturing went to owners, managers, and employed wage earners in the industries affected, instead of to consumers;³⁶ and that the subnormal production, persistent unemployment, and spotty prosperity of the post-war period (1919-36) are related to (1) the great increase in industrial productivity, and (2) the high prices for finished goods, representing failure of producing groups to share with consumers more than a small portion of the immediate benefits of this advance, in association with (3) the prevalent inflexible prices and other economic frictions impeding prompt adaptation to such marked industrial change.³⁷

As Professor Mills says:

Here is the central fact that emerges from this analysis. A host of economic frictions impede the readjustments made necessary by increasing industrial efficiency. The machine process itself, with its heavy fixed charges, has placed major barriers in the way of prompt adaptations of prices to changing conditions. Most of the obligations of a modern business are fixed in terms of dollars and these rigid monetary charges tend to freeze great areas of the price system. To these elements we must add monopolistic and semimonopolistic controls, public regulations of rates, the persistence of customary prices and scores of other factors that impede price changes and restrict the flow of capital, labor, and enterprise.³⁸

It is evident from the foregoing discussion that the prices of a wide range of commodities are directly influenced, though to different degrees, by business decisions in the field of price policy. It is clear, too, that the manner in which these private individuals exercise such power has very important effects upon the economy and that, in the eyes of some observers at least, this power has not in the past been employed along lines consonant with the broad public interest.

The actual effects of the existence of these "managed prices" and of the ways in which they are managed are exceedingly complex, and a thorough analysis is beyond the scope of the present chapter. Instead, the following discussion is confined to two of the leading problems in this field: The effect of managed prices upon business fluctuations, and the effect of managed prices upon the use of our resources and upon the general standard of living.

³⁴ F. C. Mills, *Prices in Recession and Recovery*, National Bureau of Economic Research, New York, 1936, pp. 436-441, especially pp. 440, 441, 564, 466.

³⁵ *Ibid.*, p. 352.

³⁶ *Ibid.*, pp. 453, 454. Even as late as January 6, 1940, in the New York Sun of that date, Professor Mills pointed out "The advance of some 20 percent in man-hour output in manufacturing industries since 1929 is only in part reflected in prices to consumers today."

³⁷ Summarized on pp. 462, 463; see also pp. 456-460. Cf. also P. H. Douglas, "What Shall We Do About Monopoly Prices?", *Society for Advancement of Management Journal*, March 2, 1937, pp. 45, 46.

³⁸ "Man and Machine," *Today*, 1936.

EFFECT OF MANAGED INDUSTRIAL PRICES ON BUSINESS FLUCTUATIONS

Prices of some products do not change so frequently or freely as those of others. There is no doubt that these differences in behavior to some extent reflect differences in both the nature of the market and the degree of control exercised by a few firms. In the classical free market, prices are supposed to change constantly in conformity with the varying moods of the market. Typical examples of this situation are the agricultural staples, such as corn, wheat, and cotton. A very different pattern prevails in most industrial markets. In the case of many manufactured goods, the price is set at a given level by the executive officers of the producing concern and is not subject to variation at the discretion of the individual salesman. Naturally prices of this kind cannot change from minute to minute or even from day to day; they are ordinarily maintained until some condition arises which makes a change appear necessary or desirable. The process of adjustment is less direct and takes more time.

It follows also that the need of frequent price readjustments for commodities of this kind is usually less for those companies and in those industries in which the degree of control over prices is greater. In markets where active price competition prevails, it is incumbent upon each concern at least to meet the prices offered by its competitors if it is to avoid losing business, and as a result price changes will typically be frequent. On the other hand, where competition centers upon aspects other than price, or where a substantial degree of control exists, prices can be maintained unchanged for considerably longer intervals.

Moreover, businessmen generally prefer to avoid frequent price fluctuations for a variety of reasons. Stable prices are said to facilitate business planning.³⁹ Many concerns publish their prices in the form of catalogs or price lists and any change in price may involve considerable expense. The attitude of distributors must also be considered. If prices are to be reduced dealers must be given an opportunity to dispose of the stock purchased at higher prices and if prices are to be raised, it is often necessary to give substantial advance notice to the trade in order to retain dealer goodwill. Where resale price maintenance contracts are in force, there is the added problem of issuing the necessary revisions in the price contracts and of giving legally adequate notice of the change.

Price stability may also be considered preferable by businessmen from another point of view. The various techniques which have been devised for the purpose of maintaining price uniformity among competitors generally work more smoothly when prices remain unchanged for substantial periods of time. Price cutting is easier to detect. Such schemes as basing point systems, zone prices, systematic freight equalization would become extremely cumbersome if price changes were frequent. In such industries as the steel industry, where the prices of a wide variety of products are determined by reference to a few "base prices," it is almost imperative that the base price be

³⁹ Says J. W. Scoville of the Chrysler Corporation, "Comparative stability in the model year is highly desirable; it tends to prevent speculative buying by dealers and by the public and thus enables the factories to plan and operate on reasonably uniform monthly schedules." ("Methods of Control in the Automobile Industry," *Mechanical Engineering*, July 1937, p. 496.)

stable in order to avoid confusion as well as to achieve the goal of maintaining a high degree of price uniformity among competing producers. Where "price leadership" is the rule, it is obviously easier to "follow the leader" when prices are changed once a year or perhaps once a quarter than if they are altered each week.⁴⁰

Finally, business concerns are often reluctant to reduce prices when demand falls off because they anticipate difficulty in restoring the former level when conditions improve. Price increases are likely to meet resistance even if they merely cancel an earlier decrease; the maintenance of a uniform level of prices avoids this difficulty.

For all these reasons the markets for a great many products are characterized by a much greater degree of price stability than are those of others. This is by no means a new phenomenon; it is probable that industrial prices have always moved less frequently and more narrowly than agricultural prices. However, there is some ground for believing that "rigid" or "inflexible" prices play a somewhat more important role in our economy today than they did 40 or 50 years ago. A constantly increasing share of our national income now goes for manufactured products. In addition, as goods offered for sale become more highly fabricated and more complex, the opportunities for product differentiation with its attendant increased control over prices multiply.⁴¹

These differences in price behavior become more striking during periods of wide economic upheaval. From 1929 to 1933, for example, while the prices of such commodities as copper and hides showed extreme declines of over 70 percent, the prices of others such as steel rails, sulfuric acid, and anthracite coal scarcely fell at all. The effect of these differences in "price flexibility" upon the severity and duration of business fluctuations has been the subject of much debate in recent years.

In the first place, it is evident that in an economy characterized by managed prices, price adjustments cannot be rapid enough to prevent sharp business fluctuations from developing. It is almost certainly true that prompter and more adequate price readjustments in markets which are subject to a high degree of control would appreciably cushion the force of a business downswing and probably limit its duration, but this is not equivalent to saying that such downswings could be avoided entirely. Even if all of the conscious elements of control were eliminated from industrial markets, the inevitable lag between changes in market conditions and decisions by business concerns to alter prices accordingly, between the decision and the announcement, and between wholesale and retail price adjustments, is such that production must necessarily be affected before the sequence of price adjustment can be completed.

Granting, however, that it is futile to expect price readjustments to be rapid enough to ward off recessions entirely, it still remains important to examine the role which price readjustments can play in reversing a downtrend and bringing about recovery. The setting of the problem here relates to the behavior of prices over moderately extended periods of time; that is, over months and years, rather than

⁴⁰ Temporary National Economic Committee Monograph No. 1, pp. 9-10, 34-36; also see Hearings before the Temporary National Economic Committee, Parts 19, 20, on the Iron and Steel Industry.

⁴¹ Temporary National Economic Committee Monograph No. 1, p. 19.

over days and weeks. In T. N. E. C. Monograph No. 1 this question has been discussed under the specific heading of "cyclical flexibility" as distinct from flexibility over the short term.⁴²

To some extent the two problems are related. There is ample statistical evidence to show that prices which do not adjust quickly and constantly are also likely to respond less fully to the broad upswings and downswings of business activity and of the general level of commodity prices. The prices of such products as wheat, corn, hogs, and cotton not only change constantly but also dropped very severely during the 1929-33 downswing, while the prices of steel, chemicals, and agricultural implements not only change infrequently but also declined very narrowly during the same period. While this is by no means an invariable rule, the correlation is close enough to be significant.⁴³

Essentially this implies that prices which are subject to a fairly high degree of control tend to remain far more stable during a period of business recession than do prices where control elements are weaker or absent. The reasons which impel "price managers" to avoid frequent changes in price have already been discussed, but the motives which keep such changes, when made, within narrow bounds go considerably deeper.

One of the most important of these reasons is the tendency on the part of a very large number of business executives to look upon the demand for their product as a fixed quantum largely independent of price.⁴⁴ For a wide range of goods this is individually true, especially those for which there is a joint demand. If \$10 worth of doorknobs are used in a \$4,000 house, obviously no appreciable increase is going to take place in the amount of home building and the demand for doorknobs if their price is cut in half to \$5. This is equally true for many other materials and for many types of craftsman's service jointly demanded in the house. The seller of plasterboard and the plasterer, the seller of electrical fixtures and the electrician, alike see clearly that if they are the only ones to reduce prices or wages there will be little increase, if any, in the demand for their commodities or services.

Many analysts have pointed out that fallacies usually consist of unwarranted extensions of the particular into the general. Business executives, for example, who have argued that wage reductions all along the line are essential for getting out of depression, have for decades chided labor which adopted a "ca-canny" or "make work" policy and resisted downward changes in wage rates as being deluded by the "lump of labor" fallacy. Yet oddly enough precisely those who see the fallacy in labor's intellectual processes often overlook the far more injurious fallacy in their own. To jump from individual experience in the case of articles of joint or derived demand to the conclusion that a dynamic price policy generally followed will not stimulate demand is to be deluded by a much worse fallacy than the lump of labor fallacy. It is to be afflicted with the most mischievous economic fallacy of modern times, the lump of business fallacy.⁴⁵ For it is this fallacy that makes modern industry collec-

⁴² *Ibid.*, pp. 20-21.

⁴³ *Ibid.*, pp. 31-32, 170 ff.

⁴⁴ *Ibid.*, pp. 34-37.

⁴⁵ For full explanation see *Economic Problems in a Changing World*, edited by Willard Thorp, p. 227 and ch. 11.

tively afraid of production, brings about no small amount of "conscientious withdrawal of efficiency," and generates the tremendous energy back of repeated agitation for fixing of prices by tariffs, by special Government boards, by the N. R. A., by resale price maintenance legislation, etc. It is for this reason, more than any other, that inflexible prices tend too often to be high prices, and high prices for key commodities not only have a distinct bearing on the length and severity of depressions but they also prevent the efficient use of the Nation's human and material resources during recovery.

The maintenance of high prices for the products of industry during periods of recession also creates serious disparities between freely competitive and managed areas of the economy. This issue has been most commonly formulated with special emphasis upon the position of the agricultural producer. During the period between 1929 and 1933, for example, the prices of what the farmer had to sell, which were largely flexible and determined in highly competitive markets fell about 52 percent, while the prices of commodities which the farmer bought, many of which were comparatively inflexible, dropped only 29 percent.⁴⁶ This situation had two immediate consequences, both undesirable; the farmer's standard of living was directly impaired and at the same time his reduced ability to purchase industrial goods meant lower sales and employment in manufacturing. However, it must be recognized that reduction in the price of farm products in relation to other prices influences the purchasing power not only of the farmer but also of the nonfarm population. Thus, if lower farm prices mean that the industrial worker must pay less for food than for clothing, while his income remains the same, he will thereby have a larger sum left for expenditure elsewhere. It is clear that all these factors must be given due weight in any appraisal of the issues.

On balance, however, if the group whose purchasing power is sharply curtailed is one which normally spends the bulk of its income for consumer goods, the net effect is likely to be adverse. It is for this reason that the purchasing power of the farm population is of critical significance and that any sudden and sharp drop in farm prices compared with prices of industrial commodities is usually accompanied by a serious business recession.

Moreover, as price disparities of this kind become more glaring, and as distress among the groups directly affected becomes more acute, political pressures are often built up whose long-run consequences may be at least as serious as the immediate, direct effect on the economy. Farmers, seeing the price of farm implements maintained while the prices of farm products are crashing, demand relief through crop-curtailment programs which may lead to a permanent loss of foreign markets and still further curtailment; milk producers advocate or acquiesce in controls of retail milk prices which accelerate the trend toward canned milk among consumers; coal miners try to protect their jobs by fixing minimum prices for coal; druggists campaign for resale price maintenance to raise their margins to more profitable levels; and a host of other groups seek political aid to achieve protected monopoly positions of the sort they sense to prevail in the industries whose prices have not come down. This means, in effect, that each such group is seeking to promote its own special interests without regard for the

⁴⁶ Temporary National Economic Committee Monograph No. 23, *Agriculture and the National Economy*, table 10, p. 39.

larger material interest. In the words of Commissioner Lubin of the Bureau of Labor Statistics:

We cannot hope to achieve prosperity by each seeking a larger slice of a pie which is too small. If the pie is large enough we can avoid many quarrels as to the angle at which the knife goes into the pie.⁴⁷

From almost any approach, therefore, prices which are rigidly sustained at unduly high levels must be considered altogether undesirable. When extreme rigidity reflects collusion or coercion, it is even more pernicious. And where, as in the building industry, such restraints pervade an entire key sector of the economy, it seems reasonable to assume that they contributed in real measure to the severity and duration of the depression of the thirties.

It does not follow that elimination of these artificial restraints, of these extreme rigidities, would itself have checked that depression or accelerated recovery. Rigid commodity prices are only one of the factors contributing to the unsatisfactory performance of the economy in the past decade. In particular, greater flexibility of commodity prices would have only limited value unless noncommodity prices, such as interest, depreciation, taxes, railroad and utility rates, wages, etc., were also made more flexible.

In other words, price flexibility as such should under no circumstances be regarded as a cure-all for all economic ills. Uniform flexibility of all prices is incompatible with the structure of modern economy, or, for that matter, of any industrial economy. Moreover, even if all commodity prices could in some miraculous way be made equally flexible, that alone would not suffice to insure the maintenance of full production and employment at a sustained high level as long as noncommodity prices remained inflexible.

But while price flexibility cannot therefore constitute a goal in itself, the elimination of undue price rigidity, of prices artificially maintained at high levels during periods of curtailed business activity, is not only a practical but an essential step in dealing with the problems of recession and recovery. Managed prices must be accepted as part of the world we live in, but mismanaged prices need not. This applies to noncommodity prices as well as to commodity prices; the advantages of reducing prices of construction materials during a depression would be largely lost if the cost of shipping these materials from the plant to the job site are simultaneously increased by raising railroad rates, as was done in 1931. A piecemeal program concentrated on a particular industry or a particular set of prices would have only limited value; what is needed is a coordinated approach embracing all sectors of the economy.

EFFECT OF MANAGED PRICES ON PRODUCTION, EMPLOYMENT, AND THE STANDARD OF LIVING

The second major issue connected with this problem of managed prices relates to their long-term behavior. On purely theoretical grounds the price of a commodity whose market is subject to a substantial degree of control by a single concern or by a group of concerns is likely to be somewhat higher than if such control elements were wholly absent. Expressed in technical terms, the "equilibrium"

⁴⁷ Final Report and Recommendations of the Temporary National Economic Committee, S. Doc. 35, 77th Cong., 1st sess., p. 542.

level of prices under conditions of "pure competition" will be equal to "marginal costs" of production, while in monopolistic markets this level will be such as to yield maximum profits to the seller or sellers of the product.⁴⁸

Like most broad generalizations, this somewhat oversimplifies the issues involved. To say that prices are necessarily higher in controlled than in highly competitive markets assumes a similarity of conditions which need not necessarily prevail. In particular, there is no a priori reason for believing that costs of production would be the same in the two cases. The competitive market of classical theory is attainable only when each market is divided among a large number of independent enterprises, no one of which is a dominant factor in the market. It is not compatible with large-scale mass production. It is practically certain that there are many industries in which cost economies achieved through large-scale operation more than compensate for the ability of large producers to exercise some control over price. In other words, within limits, bigness has its advantages as well as its penalties and it is impossible to say without special analysis whether in any specific case costs would be lower with smaller business units and more intense competition, or with larger units and less competition. It may well be that in most industries there is some point at which these advantages and disadvantages approximately balance each other; below this point, greater competition can only be achieved at an undue sacrifice in operating costs, while above this point further operating economies, if any, will fail to prevent a generally higher price level.

These considerations apply, however, only to the degree of control which directly reflects the position of the individual concern in an industry. They obviously do not relate to any of the devices which have been used to enhance such control, whether by collusion or coercion, or by the conscious avoidance of price competition, or by the observance of any of the forms of conventional practices which have been described earlier in this chapter. All these schemes influence prices in ways which bear at best a remote relation to cost economies. Their effect is almost always to maintain prices at higher levels than would prevail in their absence.

With regard to outright collusion or coercion, the implications are too obvious to require any extensive consideration. Higher prices achieved through these methods can have no economic justification and represent simply an added toll upon the consuming public achieved in direct violation of the provisions of the antitrust laws. They constitute in the truest sense "economic frictions" which prevent the economy from adjusting rapidly and effectively to changed conditions, retard the expansion of national income and employment, and hold down the American standard of living far below the level which our resources and technology have made possible.

A far more complex problem is presented when a concern manages to increase its control over prices by emphasizing elements other than price in its sales policy. This entire problem of nonprice competition—that is, of emphasis upon such factors as quality, services, appearance, packaging, brands, trademarks, and advertising⁴⁹—is by no

⁴⁸ Edward Chamberlin, *op. cit.*

⁴⁹ See Temporary National Economic Committee Monograph No. 1, Part I, ch. III, pp. 54-101.

means susceptible of any unqualified appraisal. Thus, where business rivalry has centered upon efforts to improve quality and performance, it is at least arguable that in many cases the consumer has been directly benefited. Expenditures for research have probably been stimulated to an appreciably greater extent in many cases than would have been true had competition centered largely upon price. Frequently, moreover, such research makes it possible not only to produce a superior article but also to produce it more cheaply than would have been possible had primary emphasis been upon direct price reductions.⁵⁰

On the other hand, it is also true that emphasis upon quality has often led to the addition of unneeded frills and gadgets—features of no real importance whose only justification was their eye-appeal or their availability for advertising emphasis. It is exceedingly difficult to strike a balance between these two aspects, particularly since both elements are usually present in relation to any single commodity. The line can be drawn in each individual case only after detailed study of its peculiar characteristics, if, indeed, it can be drawn at all.

An important collateral problem is the position of the low-income consumer. For the buyer in the upper- and middle-income brackets, the availability of a superior article is often a distinct advantage even though it may be higher in price. For the consumer in the lower brackets, however, price is often paramount, and higher quality, desirable though it may be, is of no practical value if he cannot purchase the commodity at all. For example, in the case of electric refrigerators, it is clear that until recently rivalry between producers has centered upon quality to such an extent that the huge potential market in the less prosperous sector of the population has been largely neglected. In 1940, however, prices were reduced somewhat and sales expanded sharply, suggesting that continued emphasis upon price competition might not only make it possible for consumers with limited incomes to buy refrigerators but would also open new horizons of production and employment within the industry.⁵¹

It has been pointed out earlier in this chapter that the increased control over prices which product differentiation can yield to an individual concern depends largely upon its customers' psychological appraisal of its product. It does not necessarily involve intrinsic or measurable superiority. The expenditure of huge sums to persuade the public that the product has special or unique qualities, usually accompanied with the use of an identifying brand or trademark, is the technique most commonly employed for this purpose. Excessive advertising expenditures have two apparent disadvantages. They imply substantial increases in selling costs which must in some way be reflected in the price charged for the product. At the same time, to the degree to which they are successful, they impair the effectiveness of price competition and permit the individual manufacturer to maintain prices at a higher level than would prevail in a truly competitive market.

In the case of some commodities, there seems little question that the effective use of brands and advertising has resulted in opening very

⁵⁰ *Ibid.*, p. 103 ff.

⁵¹ For an analysis of this problem in the electric refrigerator industry, see *ibid.*, pp. 154-158.

wide gaps between the price of the product and its physical costs of production. An outstanding example of this situation is the drug and cosmetic market. Thus, a comparison between the prices of a number of standard drugs sold under their proprietary names and the same drugs sold under their recognized chemical names shows that the former may be many times the latter, despite the fact that either variety will fulfill the same need with equal satisfaction.⁵² The primary difficulty here arises because the average consumer is not sufficiently well informed to be able to make the necessary price comparisons; he is unaware that the two articles are, in fact, identical except in name. This situation is not, by any means, confined to drugs and cosmetics but pervades the entire field of consumer goods to a greater or lesser extent.⁵³ In cases of this sort it may not be unfair to infer that the diversion of competitive effort to the promotion of distinctive brand names is not conducive to a high degree of economic efficiency.

Even here, however, there are still two sides to the question. It has been contended frequently that the effective use of advertising makes possible the mass demand which, in turn, is the essential prerequisite of mass production.⁵⁴ It is again necessary to balance gains against disadvantages. All that can be said with assurance is that there are undoubtedly many cases in which a disproportionate amount of competitive effort and of expense has been devoted to the popularization of a brand name or a trade-mark for the purpose of avoiding price competition and that if the same attention had been directed toward outright price reductions, the consumer would benefit appreciably. Any such benefit to the consumer, moreover, might well be reflected in an increased potential demand for goods and services and in a higher level of employment and production.⁵⁵

A partial solution of the problem of achieving the most desirable balance between the price and nonprice aspects of competition may be to render it possible for the consumer to express himself more effectively in the market. This means that the consumer should be given every opportunity to ascertain the relative merits of rival products. He should be told about their quality and their content, and their probable performance in terms which he can understand and measure, so that he can translate these differences in his own mind into terms of price. It is obvious that a branded drug could not sell for five times the price of its unbranded equivalent if consumers were generally aware that the ingredients of the two were largely identical. At the same time the consumer might well be willing to pay a reasonable premium for the product of a well known maker whose reputation for quality had been firmly established. The net result of such a program should be desirable from every angle; it should benefit the advertiser who has a truly superior article to sell as well as the consumer who will be in a position to spend his money more intelligently and without being called upon to defray the huge costs involved in building up markets by stressing unreal and misleading values.

⁵² *Ibid.*, pp. 81-83.

⁵³ See Hearings before the Temporary National Economic Committee, Part 8, Problems of the Consumer.

⁵⁴ See, for example, "The Service of Advertising," a report of the Domestic Distribution Committee, Chamber of Commerce of the United States, Washington, October 1937, pp. 5, 6.

⁵⁵ See Temporary National Economic Committee Monograph No. 1, pp. 106-107.

CHAPTER IV

CONTROLLED PRODUCTION AND SALES—TRADE ASSOCIATIONS AND CARTELS¹

Preceding chapters have explored the incidence of competition and monopoly and the concentration of production in American industry. This chapter is concerned with the place of the trade association and the cartel in our economy, since through these media control is frequently achieved in fields where firms are numerous and none is dominant.

TRADE ASSOCIATIONS

A trade association or industrial institute is an agency through which many or all of the sellers of a like commodity unite to promote their common interests. It exists solely to serve its members; it does not itself engage in the production or sale of goods. An association may be incorporated or unincorporated. It is usually governed by a board of directors elected by its members and financed by dues which they contribute in proportion to their output, pay rolls, capital, or sales. Its activities are administered by a salaried secretary and carried on by a paid staff. The members of such an association retain their legal independence. They are free to enter or to withdraw from it at will. They cannot even be compelled to pay their dues. An association, therefore, may be strong or weak, according to the force of circumstances making for voluntary cooperation within the trade. In 1940 there were more than 8,000 trade associations, local, regional, and national, in the United States, some 2,000 of them national in scope.

Association Activities.

The functions performed by trade associations for the benefit of their members are numerous and diverse. Many of them do not appear to be inconsistent with the preservation of competition; many others involve the imposition of restraints. Typical association activities include cooperative industrial research, market surveys, the development of new uses for products, the provision of traffic information, the operation of employment bureaus, collective bargaining with organized labor, mutual insurance, commercial arbitration, the publication of trade journals, joint advertising and publicity, and joint representation before legislative and administrative agencies—all undertakings that may serve a trade without disservice to its customers.

They also include the establishment of common cost accounting procedures, the collection and dissemination of statistics, the opera-

¹This chapter is based largely on Temporary National Economic Committee Monograph No. 21, *Competition and Monopoly in American Industry*, by Dr. Clair Wilcox, professor of economics, Swarthmore College. It was digested and arranged by members of the Temporary National Economic Committee staff, following which it was criticized by Dr. Wilcox and Dr. William N. Loncks, professor of economics, Wharton School of Finance and Commerce, University of Pennsylvania. For more detailed discussion, see Temporary National Economic Committee Monographs No. 6, *Export Prices and Export Cartels* (Webb-Pomerene Associations), by Milton Gilbert and Paul D. Dickens, Department of Commerce, and members of the Federal Trade Commission staff; and No. 18, *Trade Association Survey*, by C. A. Pearce; also Hearings before the Temporary National Economic Committee, Part 25, *Cartels*.

tion of price reporting plans, the standardization of products, terms of contracts, and price lists and differentials, the provision of credit information, the interchange of patent rights, the administration of basing point systems, the joint purchasing of supplies, and the promulgation of codes of business ethics, each of them practices which may operate to restrain competition in quality, service, price, or terms of sale.

Table 5 gives in compact form not only an idea of the scope of trade association activities but also of the number of associations engaging in each type of activity. Some of the activities, such as organized research, development of new uses for products, and the operation of employment bureaus, are of direct or indirect benefit even to the consumers of commodities sold by members of the associations.

Trade associations in general have manifested less interest in those activities which are designed to enable the members of a trade, without sacrificing their essential independence of action, to cooperate in increasing efficiency, reducing costs, and improving their service to the public, than in those which are calculated to secure their adherence to a common policy governing production and price.

It is impossible to measure the extent to which members of trade associations are actually engaged in cooperating to serve the public or conspiring against it. The line between cooperation and conspiracy is not an easy one to draw. The courts, to be sure, must attempt to draw it. Price reporting, for instance, is held to be legal if reports are confined to past transactions. It is of uncertain legality if they cover current or future transactions and if members are required to adhere to the prices they have filed. It is illegal if essential information is withheld from buyers, if sellers are identified, if members agree upon the prices they will file, and if adherence to these prices is enforced by detailed supervision and by the imposition of penalties. But no one can say with confidence how many of the price-reporting systems now in operation fail to overstep this line. And so it is with many other phases of association work.

TABLE 5.—*Number and percent of total number of national and regional trade associations engaged in specified activities, 1938-39¹*

Activity	Total number of associations	Percent of total number	Associations indicating major degree of activity		Associations indicating minor degree of activity	
			Number	Percent of total number	Number	Percent of total number
Total number of associations.....	1, 244	X	X	X	X	X
Government relations:						
"Information or assistance given to Government bodies".....	621	49.9	371	29.8	250	20.1
"Acting as industry representatives in contacting"—						
"Legislative bodies".....	556	44.7	289	23.2	267	21.5
"Tariffs and trade-agreements agencies".....	396	31.8	190	15.3	206	16.5
"Taxation agencies".....	302	24.3	122	9.8	180	14.5
"Scientific or technical agencies".....	391	31.4	145	11.7	246	19.7
"Other executive or administrative agencies".....	562	45.2	262	21.1	300	24.1
"Reporting governmental activities".....	783	62.9	401	32.2	382	30.7
"Drafting and promoting model laws".....	236	19.0	89	7.2	147	11.8

¹ Based on returns from 1,244 of approximately 1,404 national and regional trade associations, exclusive of those in the insurance field, that were active in June 1938. For a statement of the nature of the items and the limitations of the data see Temporary National Economic Committee Monograph No. 18, pp. 24-25.

TABLE 5.—*Number and percent of total number of national and regional trade associations engaged in specified activities, 1938-39—Continued*

Activity	Total number of associations	Percent of total number	Associations indicating major degree of activity		Associations indicating minor degree of activity	
			Number	Percent of total number	Number	Percent of total number
Employer-employee relations:						
"Surveys, advice, and assistance relative to labor relations"						
"Wages, hours, working conditions"	642	51.6	281	22.6	361	29.0
"Collective bargaining"	197	15.8	113	9.1	84	6.7
"Welfare, including safety"	271	21.8	85	6.8	186	15.0
"Employee training"	199	16.0	84	6.8	115	9.2
"Placement service"	169	13.6	23	1.9	146	11.7
"Public relations"	638	51.3	321	25.8	317	25.5
Trade promotion:						
"Cooperative advertising"	347	27.9	174	14.0	173	13.9
"Technical" and/or "commercial publications"	467	37.5	293	23.6	174	13.9
"Exhibitions"	416	33.4	190	15.3	226	18.1
"New uses for industry products"	307	24.7	137	11.0	170	13.7
"New markets for industry products"	390	31.4	150	12.1	240	19.3
"Foreign trade promotion"	120	9.6	36	2.9	84	6.7
"Market research"	426	34.2	165	13.3	261	20.9
"Technical merchandising advice"	266	21.4	113	9.1	153	12.3
Standardization and simplification:						
"Standardization and simplification"	611	49.1	343	27.6	268	21.5
"Establishment of quality standards"	571	45.9	356	28.6	215	17.3
Technical research and advisory services:						
"Operations of research laboratory"	180	14.5	87	7.0	93	7.5
"Other forms of technical research"	362	29.1	193	15.5	169	13.6
"Technical advisory services"	379	30.5	194	15.6	185	14.9
Trade statistics	548	44.1	428	34.4	120	9.7
Price and bid information	187	15.0	100	8.0	87	7.0
Accounting, cost statistics and studies:						
"Establishment of uniform accounting"	348	28.0	158	12.7	190	15.3
"Industry cost studies"	470	37.8	212	17.1	258	20.7
Statistical republishings and special studies	678	54.5	332	26.7	346	27.8
Traffic and transportation:						
"Packaging and shipping"	202	16.2	61	4.9	141	11.3
"Freight rate books, etc."	150	12.1	84	6.8	66	5.3
"Credit information service"	355	28.5	159	12.8	196	15.7
"Collection service"	151	12.1	54	4.3	97	7.8
Trade practices:						
"Classification of customers"	60	4.8	14	1.1	46	3.7
"Classification of sales areas"	30	2.4	8	.6	22	1.8
"Trade practice conferences"	433	34.8	209	16.8	224	18.0
"Standard business forms and contracts"	339	27.3	87	7.0	252	20.3
"Combating unfair competition"	670	53.9	333	26.8	337	27.1
"Cooperative selling"	15	1.2	5	.4	10	.8
"Commercial arbitration"	215	17.3	91	7.3	124	10.0
"Registration of patents, trade-marks, designs, and styles"	145	11.7	33	2.7	112	9.0
Miscellaneous services:						
"Insurance assistance"	225	18.1	55	4.4	170	13.7
"Legal services"	426	34.2	157	12.6	269	21.6
"Library service"	249	20.0	68	5.5	181	14.5
"Patent cross-licensing or pooling"	(2)	(2)	(2)	(2)	(2)	(2)
"Used machinery exchange"	95	7.6	12	1.0	83	6.6
"Cooperative buying," including assistance in buying	53	4.3	17	1.4	36	2.9
"Conventions"	667	53.6	450	36.2	217	17.4

² Less than 10 associations reported this activity.

Source: Temporary National Economic Committee Monograph No. 18, Trade Association Survey, table 25, p. 373.

There are some 2,000 national trade association offices in the United States. In each of them a secretary with his staff is working, presumably 6 days in every week, 52 weeks in every year, to administer activities in which at times competitors do not compete. Upon occasion, the Federal Trade Commission or the Department of Justice makes an investigation and certain practices of an association are proscribed by the Commission or the courts. But no such sporadic action can be expected to disclose each of the cases in which competition is restrained.

Limitation of Competition Through Trade Associations.

The fact that trade associations have frequently succeeded in bringing prices and production under common control is revealed by the results of economic inquiries published by the Federal Trade Commission and by independent investigators, by cease and desist orders issued by the Commission, and by decisions handed down by the courts. It is also suggested by numerous complaints issued by the Commission and by indictments returned by grand juries in proceedings which are still open. A partial list of the instances has been compiled, involving some 200 groups in more than a hundred different trades, in which it has appeared at some time during the past 20 years that a trade association, industrial institute, or other common agency was exercising some form of control over production, price, and terms of sale in national or regional markets. Among the trades represented are manufacturers of agricultural implements, aluminum cooking utensils, brick, brooms, brushes, candy, cigars, carpets and rugs, elevators, glass containers, dresses, household furniture, steel, copper, and bituminous coal; dealers in wholesale groceries, wholesale hardware, retail jewelry, life insurance, liquor, wholesale optical goods, wholesale tobacco, dry goods, and notions; distributors of flowers, glass, lumber, paper, plumbing supplies, surgical instruments; jobbers of automobiles and accessories, bakers, canners, distillers, flour millers, fur dressers, music publishers, oil refiners, and photoengravers.²

The list includes no suits instituted by private parties. It includes only one of the cases decided under the antitrust laws of the several States. It includes no case in which the Federal Trade Commission dismissed a complaint and, with but few exceptions, none of those in which the Government either dropped a suit or suffered a reversal at the hands of the courts.

It is obvious, however, that the area in which the economist will find effective competition to be superseded by common control must be much larger than that in which the courts will hold such control to constitute a conspiracy in restraint of trade. The number of cases involving the elimination of competition through common agencies has, therefore, probably been greater than the list reveals.

Table 6 lists 206 associations which have been named as defendants in antitrust proceedings by the Department of Justice.³ Many of these associations have been defendants in more than 1 proceeding. One hundred and twenty associations have been defendants in 1 or more cases since March 24, 1938. It is probable that this list does not exhaust the instances in which unlawful restraints of trade have developed among trade associations. The personnel of the Antitrust Division has been insufficient to investigate and prosecute all substantial complaints which have come to its attention. There is reason to believe that a broader program of investigation would have resulted in cases against additional associations.

² For the complete list, see Temporary National Economic Committee Monograph No. 21, *Competition and Monopoly in American Industry*, pp. 235-240.

³ See pp. 405-408, *infra*.

Control of Prices Through Trade Associations.

The instances in which trade associations are known to have exerted control over prices are numerous. A brief reference to cases follows.

Control in the flour milling industry has taken the form of drives to outlaw sales below or at "cost," centralized determination of the elements which enter into "cost," agreement concerning the terms of sale, and both informal and systematic exchange of price quotations. To this end millers were urged, in trade meetings and through correspondence, to maintain prices at profitable levels.

In the bread baking industry, the American Bakers' Association, a national body whose membership in 1925 included 13 constituent associations and 526 concerns, has been instrumental in the adjustment of "price wars" within the trade and in the negotiation of agreements on price. The Associated Bakers of America, another national group, carried on most of its activities through State, district, and local associations. One of these held 37 district meetings in 1 year, effected agreements on prices, premiums, and other relevant matters at 11 meetings, and prepared the ground for such agreements at several others.

Price fixing was found to be a characteristic activity of certain trade associations in the household furniture industry between 1920 and 1922. Four associations engaged a retired furniture manufacturer to issue bulletins to their members showing "selling values" for representative furniture items based on theoretical replacement cost, to attend regular sales markets for the purpose of consulting with members and inspecting their lines, and upon request to name selling prices for specific articles. Control of the price of furniture, however, is made difficult by the heterogeneity of products created by variations in style. This handicap was overcome in part by the association program, but the goal of complete price uniformity was not attained.

In the cottonseed crushing industry, where some 500 mills, united into State and national trade associations, purchase their raw material from more than 12,000 ginneries, efforts of the association have been directed toward controlling the prices which the crushers pay for seed. This was done in certain southern cities in the twenties by posting "fair" prices; that is, those which would insure a profit the crushers believed to be reasonable. Failure to adhere to the posted prices was considered unfair and unethical. Price information was also exchanged between members by telephone and telegraph, and association secretaries wired the information to other members. In some cases data were released to the public through newspaper or radio, but these reports frequently omitted mention of the highest prices paid. Cottonseed oil refiners also employed price reporting as a means of achieving price uniformity. When the Department of Justice in 1929 objected to the interchange of current prices, the refiners, as had the crushers, adopted the subterfuge of labeling them as past prices.

In 1929 the Department of Justice entered suit against the Shingle and Roofing Institute and its officials, charging that its members had fixed uniform and noncompetitive prices, terms, discounts, and freight charges, that they had arbitrarily classified customers and agreed upon

their credit qualifications, had operated a price reporting system under which no member could change his prices without first notifying the others, and that they enforce these arrangements by monetary penalties. The suit was dropped in 1935 after a code of fair competition had been approved by the N. R. A.

According to the Federal Trade Commission, the Metal Window Institute required its members to adhere to established prices by threatening to impose penalties on those who sold for less. Producers of snow fence, organized as the United Fence Manufacturers' Association, maintained a system of identical delivered prices and employed a price reporting scheme. Those who failed to maintain these prices were threatened and cut off from the sources of supply. The Federal Trade Commission issued a cease and desist order on July 13, 1938.

Allocation of Markets and Customers Through Trade Associations.

In some cases, trade associations have undertaken to distribute among their members exclusive sales areas or groups of customers. "It appears to be a widely accepted principle," says the Federal Trade Commission, "that concerns selling in the local territories of others in the industry should respect the prices established by the local concern. Cases of violation of this principle have been reported to association executives, who in turn have taken to task the offending member."⁴ While such activity permits one member to invade another's market, it denies him the right to do so by competing on the basis of price. While it does not involve the allocation of exclusive territories, it clearly points in that direction. There are cases, however, in which the division of markets has been complete.

Allocation of markets or customers has been practiced in the consumer credit reporting business, among manufacturers and distributors of window glass, among dealers in building materials, and in the textile refinishing industry. In the first case, the association divided the country into regions and assigned these as exclusive reporting territories to member agencies. In window glass, customers were classified according to the size of their purchases and prices were published to correspond. With the distributors each "quantity" buyer was assigned a restricted territory and was forbidden to sell beyond its boundaries. Organized building material dealers, working through committees, undertook to confine the distribution of materials to "recognized" dealers. The committee for cement recommended that market territories be assigned to dealers and that manufacturers should not be permitted to ship cement to construction jobs outside the prescribed boundaries. Organized firms, including practically all those in the New York market, engaged in examining and sponging cloth for clothing manufacturers, in addition to agreeing upon prices and terms of sale, assigned the business of each manufacturer to a single member of the association and compelled the manufacturer to conform to this arrangement. In all four instances such practices were forbidden by the Federal Trade Commission in 1933, 1936, and 1937.

Allocation of Production and Sales Through Trade Associations.

The distribution of business among association members has been accomplished not only by allocating markets and customers, but also

⁴ Federal Trade Commission, *Open-Price Trade Associations*, p. 285.

by assigning fixed shares in production and sales. In some cases, this has taken the form of a reduction in output based upon productive capacity or upon the volume of goods sold in a previous year. In others, it has involved the adoption of an elaborate system of quotas.

Production has been allocated through concerted restriction of output by producers of canned peas, copper, cotton yarn, cotton textiles, window glass, and wooden containers. During the twenties restrictive provisions were arranged under the auspices of the National Window Glass Manufacturers' Association, the Southern Yarn Spinners' Association, and the Wisconsin Cannery Association. The producers of copper, meeting under the auspices of the Copper Institute, pledged themselves in 1930 to cut output by 16 percent, and announced in 1931 that production should be limited to 26.5 percent of capacity. In 1932 the Cotton Textile Institute promoted curtailment programs in several branches of the industry. Print cloth mills, for example, undertook to reduce their output by amounts which ranged from 10 to 50 percent. Again in 1939 print cloth mills were said to be operating under a "Print Cloth Curtailment Program" administered by a "Curtilment Program Committee" which required them to restrict production by 25 percent and forbade them, without permission, to sell from stocks on hand.

In an order issued in 1940, the Federal Trade Commission found that twenty-five firms, members of the Standard Container Manufacturers' Association, producing all of the baskets, boxes, crates, hampers, and other wooden containers for fruits and vegetables made in the States of Florida and Georgia, had agreed, among other things, to curtail the production of such containers and had enforced this agreement by requiring each member to check on the output of some other member and report on his compliance with the scheme. In each of these cases it appears that the several firms in an industry have, in effect, been allotted shares in its market on the basis of their past production or capacity. In other words, definite quotas have been assigned.

A quota system controlled the oil refining industry in California until it was outlawed by a consent decree in 1930. A similar system existed under an N. R. A. code. A current indictment charges that the members of an association of seven major companies and an association of 30 independent companies shared their customers, refusing to supply gasoline to dealers who were being served or had been cut off by others, unless permitted to do so by the latter concerns. The quota system supplemented a program of price control by preventing the expansion of output and the consequent depression of the established price.

The National Elevator Manufacturing Industry, a trade association whose members control 98 percent of the elevator business in the United States, fixed prices and terms of sale, assigned production quotas, and compelled them by threats and penalties to maintain the established prices and remain within the prescribed quotas. The association in this industry assigned to its members production quotas based upon the share of the total business handled by each of them in the years from 1928 through 1933 and adopted a rule which bound them to refuse to accept orders in excess of these shares. It compelled them to adhere to the established prices and quotas by threatening

to oust them from the association and to have them sued for infringement of patent rights if they failed to do so. On October 30, 1939, the Supreme Court of the State of New York issued a permanent injunction against the continuance of the practices described.

Trade association quota systems have seldom been enforced by the imposition of pecuniary penalties, but such systems are known to have been projected. One of the trade association production quota and penalty systems on record is that administered by the California Rice Industry between 1935 and 1938. California's eight rice millers, all members of this association, agreed upon uniform buying prices for paddy, uniform selling prices for processed rice, and uniform terms of sale, quantity discounts, and brokerage fees. The association established a formula for the computation of individual prices and announced a basic "industry price" on Tuesday of each week. Association accountants checked members' invoices and records in order to determine whether they were adhering to the program and made monthly reports which were discussed at association meetings. The group also assigned a monthly processing quota to each miller and required him to pay into a "Millers Trust Fund" 10 cents for every hundred-pound bag of rice processed within his quota and 20 cents for every bag processed outside his quota. After association expenses were paid, the remaining money was distributed among the participants, penalties being deducted from the shares going to those who had violated any of the terms of the agreement. The program was terminated by a cease and desist order issued by the Federal Trade Commission on May 26, 1938.

Trade Association Boycotts.

Trade associations have frequently undertaken to enforce their programs by organizing boycotts or by threatening to do so. They have sought to confine the business of a trade to association members, to force nonmember competitors to join the association or to withdraw from the field, and to compel members and nonmembers alike to adhere to association rules. To these ends, loyal association members have applied concerted pressure, directly by refusing to deal with recalcitrant members and nonmember competitors, and indirectly by refusing to buy from suppliers who have sold to them or to sell to purchasers who have bought from them. In the same way, association members have sought to compel purchasers for resale to maintain fixed resale prices by collectively refusing to sell to those who have failed to do so. Associations have thus extended their control beyond the boundaries of their own membership and have forced outsiders to conform to their policies by threatening to deprive them of markets and supplies.

In the wholesale and retail trades, national and regional associations found to have resorted to boycotts at some time during the past 20 years, and associations recently charged with doing so, include those whose members were engaged in the distribution of automobile parts and accessories, building materials, candy, coal, dry goods, flowers, glassware, groceries, hardware, harness and saddlery goods, hot air furnaces, jewelry, liquor, lumber, paper, rubber heels and soles, shoe findings, sponges, and surgical instruments. By boycotts and by threats of boycotts these groups have diverted the traffic in such goods from the routes it might otherwise have followed and, in

the phrase of the Federal Trade Commission, have taken toll on it as it has passed.

Association members in other fields have attempted to monopolize their respective trades by employing similar tactics. Jobbers of plumbing supplies and plumbing contractors have been charged with conspiring to maintain a "restricted system of distribution" under which goods were to move only from manufacturers, through the jobbers, to the contractors, who sold and installed them, the jobbers confining their purchases to manufacturers who sold only to them and refusing to install equipment which had not arrived by the designated route. Cigar manufacturers have refused to buy cigar boxes, cap manufacturers have refused to buy visors and trimming, and laundry owners have refused to buy machinery and supplies from firms who have sold to competitors who were not approved by their respective associations. Hat frame manufacturers and peanut shellers and cleaners have refused to deal with competitors who have failed to adhere to association rules, and hardwood lumber producers have been charged with similar activity. Millinery manufacturers have refused to sell to retailers who have handled copies of styles which they claim to have originated, and the manufacturers of fireworks, power cable and wire, and snow fence, among others, have refused to sell to distributors who have failed to maintain fixed resale prices. In all of these cases, association members have employed the boycott as a means of forcing outsiders to conform to programs which they have adopted in their own interest.

Local Associations.

In local, as well as in national markets, the presence of many sellers affords no guarantee that active competition will prevail. Bakers, barbers, building contractors, cleaners and dyers, coal dealers, cold storage houses, garages and parking lots, hotels, ice manufacturers, laundrymen, lumberyards, milliners, movers, printers, restaurants, retailers of every description, shoe repairmen, tailors, theaters, truckmen and undertakers all had their "codes of fair competition" during the days of the N. R. A. Many of them, before and since, have entered into price agreements, shared markets, and inflicted boycotts on those who dealt with their competitors. A partial list of instances, involving more than 150 groups in some 50 different trades in many different localities suggests the extent to which a trade association, a trade union, or some other group, formal or informal, has imposed limitations on competition in local markets at some time during the past 20 years.⁵

Competition among retailers in each of a number of local markets has frequently been suppressed through the efforts of associations organized on a regional and national scale. The Federal Trade Commission reported in 1929 that retailers of drugs had long followed the practice of marking prices on copies of prescriptions by employing the code word "pharmocist" or "pharmecist" in which, by eliminating one duplication, the successive letters were made to stand for the numerals 1 to 9, the last letter representing zero, thus compelling the customer who took a prescription to a second druggist to be re-filled to inform him, inadvertently, concerning the price charged by

⁵The list is given in Temporary National Economic Committee Monograph No. 21, pp. 280-285.

the first. The pressure that has induced legislatures to enact "fair trade" laws and compelled manufacturers to sign resale price maintenance contracts has come, in the main, from an association representing retailers of drugs. The pressure that has persuaded legislatures to enact "unfair practice" and chain store tax laws has come largely from associations representing retailers of groceries. Members of both trades have attempted, through such measures, to make it difficult for their more powerful rivals to compete on the basis of price.

Local associations of automobile dealers have employed a variety of devices for the purpose of restricting competition, principally by controlling trade-in allowances. Other arrangements cover such matters as new car prices, discounts, rebates, accessories, and supplementary services which might be used as means of granting indirect concessions in making sales. Exclusive territories are commonly assigned to dealers in cars of the same make and the observance of territorial boundaries is enforced by penalties. The Federal Trade Commission in its investigation of the automobile industry in 1938 found such arrangements to be widely prevalent throughout the trade.

Price fixing arrangements have also characterized the cleaning and dyeing trade in many communities. In Denver, Detroit, St. Louis, and Portland, Oreg., and in certain localities in Iowa, where no provision was made for their enforcement, "gentlemen's agreements" establishing common charges have broken down. In the Twin Cities, the Cleaners and Dyers Institute of Minnesota succeeded for a time in maintaining a minimum price, issued an emblem to cooperating plants, and conducted an advertising campaign designed to convince consumers that cleaners displaying the emblem offered a superior quality of work. In Montgomery, Ala., the local association required members to cut prices sharply in order to bring individual price cutters back into line and imposed fines on those who violated their agreement.

Building Construction.—Competition in the construction industry in many urban areas has been restrained by the activities of associations of dealers in various building materials, by the operation of rings of subcontractors, or, less frequently, general contractors, and by the practices of trade unions.

The dealer groups have sought to confine the distribution of building materials to "regular" channels, to establish common prices, and, in some cases, to effect a division of the market. Members of associations at various stages of the distributive process have agreed to limit their purchases and sales to members of associations at the preceding and following stages. Combinations of dealers have employed the boycott as a means of compelling producers to sell and consumers to buy exclusively through them. They have also made use of the boycott in disciplining their own members, refusing to buy from manufacturers who were selling to dealers who had failed to adhere to the prices they had fixed. Boycotts or threats of boycotts have been employed by hot air furnace dealers in New York, lumber dealers in California, and building supplies dealers in many sections of the country.

Groups of dealers have frequently negotiated price agreements at trade meetings, establishing a fixed mark-up between invoice cost

and selling price, promising to adhere to some recognized price list, or conspiring with groups of manufacturers to set up a joint system of price control. Such agreements have been found or alleged to exist at various times, and in widely scattered cities and localities, among dealers in sand and gravel, plumbing supplies, tile, sewer pipe, electrical supplies, lumber, and plaster and plastering materials dealers. Members of dealers' associations have sometimes gone beyond mere price-fixing to agree upon a division of the market, assigning to each of their number a certain percentage of the total business, or assigning certain customers to certain firms. Markets have been shared in this way by lumber dealers in the coast counties of California, are alleged to have been shared by lumber dealers in the harbor district, by marble dealers in southern California, by glass distributors in northern California and in Chicago, and by steel sash dealers in Cleveland.

Local rings of subcontractors in the various branches of the building trades have concerned themselves principally with the determination of bids submitted by their members and with the allocation of contracts among them. In some cases, such a group operates a central estimating bureau which either maintains a uniform costing system and circulates specifications for the material and labor to be included in each job, thus enabling all of its members to arrive at the same bid, or itself calculates the cost of jobs and tells its members what to charge. Since identical bids result, contract-letting authorities are forced to award contracts by lot and every member of the bidding group is ultimately afforded an equal share in the market, each of them accepting the particular jobs that come to him by chance. In other cases, the group determines in advance which of its members is to get a job and so arranges the bids that his is lower than the rest. In still others, it maintains a depository where copies of estimates and bids are filed. Here members may open, read, and revise their bids before submitting them to architects or general contractors. They may raise the level of these bids by making certain that they conform to prescribed prices for materials, labor, and overhead, or by requiring that an arbitrary sum be added to each. They may allocate contracts according to some general rule, making the lowest bidder withdraw his bid and submit a new one higher than the highest, averaging the bids and throwing out those that fall more than 10 percent below the average, or assigning each job to the bidder whose bid comes closest to the average, and requiring those whose bids fall below this figure to submit new bids to exceed it. Or they may merely decide which of their number is to receive each contract and rig the bids accordingly. Practices such as these have been found to exist in numerous cities throughout the country among contractors in many types of building supplies and building jobs.

In a few cases, contractor groups appear to have gone beyond mere price-fixing to establish profit pools. It has recently been found, for instance, that general contractors in New Orleans had agreed to add to their estimates sums sufficient to enable successful bidders to reimburse unsuccessful bidders for costs assertedly incurred in connection with their bids.

Subcontractor groups have sought not only to compel their members to adhere to their price-fixing plans, but to cripple or eliminate their competitors by excluding outside contractors from the local

market, by preventing the employment of nonmembers, by forbidding builders to use prefabricated products or materials produced by outsiders, by forcing them to make their purchases through "regular" channels, and in some cases by requiring them to use materials which the members of the group control.

Municipal ordinances give boards of contractors authority to license and register members of the trade, and, with it, the power to discipline them by refusing or withdrawing the right to do business. Building ordinances, ostensibly designed to eliminate health and safety hazards, sometimes contain provisions which operate to exclude materials produced by outsiders from the local market and to compel builders to use materials controlled by local firms. Many jurisdictions now require State and local authorities to let contracts for public construction by preference to resident firms. It is said, moreover, that building inspectors have often been in league with rings of local contractors. Subcontractor associations have also contrived to cut nonmembers off from supplies of material and labor by entering into agreements with associations of producers and distributors, and by entering into similar agreements with trade unions.

To the restraints which they have enforced on behalf of subcontractor groups, craft unions in the building trades have added restraints of their own. In certain trades when members of the same union work at successive stages of the productive process, those at the later stages have sometimes refused to work with materials which have not passed through the hands of their fellow members at an earlier stage. Trade unions have also resisted the introduction of materials and processes which reduce the amount of work required of artisans at the building site. In some cases, a single union has prevented the use of prefabricated products by refusing to supply labor for jobs where they were to be employed, by calling strikes against jobs where they were introduced, and by threatening to do so. In others, a group of sympathetic unions has combined to apply such pressures.

As these lines are written, the campaign initiated by the Department of Justice for the enforcement of the antitrust laws in the building trades is well under way. New indictments are being handed down and consent decrees accepted by trade and labor groups during each succeeding week. It seems probable that practices such as those described above are more widespread than even these prosecutions have revealed. The combined effect of the restraints imposed by associations of producers and distributors of materials, by rings of subcontractors, and by trade unions probably has so increased the cost of construction as seriously to limit the volume of building.

CARTELS

A cartel is an association of independent enterprises in the same or similar branches of industry, formed for the purpose of increasing the profits of its members by subjecting their competitive activities to some form of common control. Membership in such an association is usually voluntary, although in some cases it has been required by law. The association may be limited in form to a contractual agreement or it may involve the establishment of administrative agencies. It may be limited in duration to a few months or

it may persist for many years. It may or may not achieve a position of substantial monopoly power. The members of such an association remain under separate ownership, retaining their freedom of action with respect to matters which are not included, and surrendering it only with respect to matters which are included within the scope of their agreement. The distinguishing characteristic of the cartel is that this agreement invariably requires the substitution of common for independent policies in the determination of price and production.

Cartel types, differentiated according to the methods which they employ, fall into four major categories. In the first are those associations that attempt to control the conditions surrounding a sale; in the second, associations that undertake to fix prices; in the third, associations that undertake to distribute among their members particular productive activities, sales territories, and customers; in the fourth, associations that undertake to award each member a fixed share of the business. In the widest definition of the term, cartels are taken to include associations that fall within any of these four categories; in a narrower definition they are taken to include only those that fall within the last three; in the strictest definition they are taken to include only those that fall within the last two: associations that distribute production or sales among their members by marking off exclusive areas of activity or setting up a system of quotas. The methods employed by a single cartel may place it within more than one of these categories. Cartels of all types attempt to regulate the terms of sale but few cartels stop here; the tendency has been to move on from those forms of control that are mild and simple to those that are stringent and complex. In its highest development—the syndicate—the cartel combines the functions characteristic of many cartel types.

In a few industries, in a few countries, cartelization has been required by law. Elsewhere the enforcement of cartel arrangements depends upon persuasion backed by various forms of economic pressure. Cartels are in a position to discipline their members by revoking licenses granted under patents which they hold in a common pool, by imposing fines against money which they hold on deposit, and by withholding payments from equalization pools, profit pools, sales receipts, and other funds which they control. They can compel outsiders to become members or may even drive them out of business by offering loyalty discounts to customers who do not deal with them, by boycotting suppliers who sell to them and customers who buy from them, and by making exclusive contracts with suppliers and with customers which cut them off from access to materials and to markets.

International Cartels.

An international cartel may be an association of independent enterprises, located in two or more countries. It may be a super-cartel, composed of a number of national cartels. It may include in its membership publicly owned or operated enterprises or even governments themselves. The purpose of such an association is the same as that of a national cartel: to increase the profits of the participants by checking competition, in this case, however, in markets located beyond national boundaries. Since an international cartel agreement

transcends national sovereignty, its provisions cannot be enforced by law. Each such agreement is a treaty among independent powers and each such cartel, in effect, a league of nations. No one knows how many international cartels are in existence at any time. They are said to have numbered 114 in 1914. A list published in 1929 included 46; one published in 1940 includes 56. International agreements are known to have affected trade, at some time during the past two decades, in such basic materials as cement, coal and coke, rubber, sugar, wheat, and numerous metals and minerals; in many chemicals; in bottles, ceramics, enameled ware, plate glass, and porcelain; in sulphite pulp, newsprint, packing and other paper; in flax, rayon and wool textiles, felt clothing, and linoleum; in buttons, leather, glue, oils, fats and greases; in many metal products; in a variety of other fabricated goods; and in such services as transoceanic shipping, cable and radio communication, marine insurance, and the distribution of motion picture films.

Cartels in the American Market.

With a single exception, the organizations referred to in this section have called themselves associations, institutes, industries, or clubs, but not cartels. The activities themselves, however, are identical with those in which cartels have been engaged. Almost every trade association attempts to regulate the terms of sale. Many associations attempt to control the prices at which goods are sold. Some allocate markets and customers among their members. Others seek curtailment of output on the basis of past production or capacity. Still others assign each of their members a quota in the total volume of production or sales. There have even been cases in which a common selling agency, like the European syndicate, has been employed. Such agencies made their appearance, at some time between 1920 and 1940, among the canners of sardines, among the composers and publishers of copyrighted music, among tanners, and among the producers of bituminous coal, lumber, brick, candy sticks, charcoal, concrete pipe, and water-marked and white glazed paper.

In many cases, too, associations have resorted to the boycott, a weapon which has been used by European cartels. The parallel that may be drawn between trade associations and cartel activities lends support to the statement made by President Roosevelt in the message that led to the creation of the Temporary National Economic Committee. "Private enterprise," he said, "is ceasing to be free enterprise and is becoming a cluster of private collectivisms; masking itself as a system of free enterprise after the American model, it is in fact becoming a concealed cartel system after the European model."⁶

The N. R. A. Codes.—If the program adopted by a trade association is to be effective, adherence to its provisions must be general in the trade. Where one or two large firms dominate an association, fear of retaliation may keep their smaller competitors in line. Where members are more nearly equal in size and power, adherence must be secured either by persuasion or by coercion. If all the firms in a trade are like-minded, persuasion may suffice. But if a minority refuses to cooperate, some measure of compul-

⁶ S. Doc. 173, 75th Cong., 3d sess., p. 3.

sion is required. Members may be granted restrictive patent licenses and threatened with revocation and infringement suits. They may be asked to enter into contracts which provide for the payment of damages in the event of a violation of their terms. They may be required to make deposits against which penalties can be imposed. They may be threatened with boycotts which would deprive them of markets and supplies. They may be subjected to pressure by persuading outsiders with whom they deal to cooperate in the enforcement of the plan. But each of these measures has its limitations. Patents may either be lacking or of insufficient importance to enable their holders to exercise effective control. Contracts affecting prices and production may not be upheld by the courts. Recalcitrant minorities may refuse either to make deposits or to participate in boycotts. Outsiders may be unwilling to act as enforcement agencies. If general adherence to association programs is to be insured, they must be enacted into law and enforced by the State. This was one of the effects of the National Industrial Recovery Act from 1933 to 1935.

The "codes of fair competition" which governed American industry during the life of the N. R. A. were exempt from the prohibitions of the antitrust laws. Violation of any of their provisions was made an unfair method of competition subject to action by the Federal Trade Commission, and a misdemeanor punishable by a fine of \$500 for every day in which it occurred. These codes were originated, almost without exception, by trade associations. The code authorities which were set up to administer them were frequently composed of or selected by trade associations. In three cases out of four, the code authority secretary and the trade association secretary bore the same name and did business at the same address. Code administration was usually financed by mandatory assessments imposed upon each of the firms in an industry. In the garment trades, collection of the levy was assured by the requirement that a label purchased from the code authority must be sewn in every garment sold. The program thus involved in some cases a virtual delegation to trade associations of the powers of government, including in many cases the power to tax.

The N. R. A. undertook, in the words of its own declaration of policy, "to build up and strengthen trade associations throughout all commerce and industry."⁷ It conferred new powers and immunities on strong associations, invigorated weak associations, aroused moribund associations, consolidated small associations, and called some 800 new associations into life. It sought to employ these agencies as instruments in the promotion of industrial recovery. But many of the provisions which it permitted them to write into their codes were illy designed to achieve this end.

The N. R. A. approved 557 basic codes, 189 supplementary codes, 109 divisional codes, and 19 joint N. R. A.—A. A. A. codes, a grand total of 874. All of these codes contained provisions which governed the terms and conditions of sale. A mere listing of the categories of regulations involved in the various codes covers more than 50 pages of single-spaced typewritten material. In general, these provisions were designed to effect the allocation of business among the

⁷ N. R. A. Bulletin No. 7, January 22, 1934.

firms within a trade and to prevent the granting of any indirect concession which would operate to reduce a price.

Of the first 677 codes, 560 contained some provisions for the direct or indirect control of price. Of these, 361 provided for the establishment of standard costing systems; 403 prohibited sales below "cost"; 352 forbade members to sell below their individual "costs"; and 51 forbade them to sell below some average of the whole industry's "costs." Thirty-nine standard costing systems were approved by the N. R. A.

Four hundred and twenty-two codes provided for the establishment of open-price reporting systems. Most of these systems were of a character that would probably have been outlawed under the earlier decisions of the Supreme Court. One hundred and sixty-one of them gave no information to buyers; all of them identified the prices reported by individual sellers; all of them required sellers to adhere to the prices they had filed; 297 of them required a waiting period before a new filing was permitted to take effect. In many cases, the reporting system was employed as a means of enforcing a code provision against sales below a "cost-covering," "emergency," or minimum price.

A number of codes contained provisions which were designed to effect an allocation of markets among the members of a trade. Ninety-one codes provided for the restriction of output and the distribution of available business among the firms in a trade. Adherence to code requirements was enforced not only by public penalties provided in the law but also by private penalties established in the codes. Twenty-six industries bound their members to pay "liquidated damages" into the treasury of a code authority in the event of a violation. It appears that the "liquidated damages" were really fines imposed on violators of the code rather than payments made to injured parties in order to reimburse them for losses actually sustained.

The Aftermath of the N. R. A.—In some of the cases cited above, the activities of trade groups under the codes did not go so far toward eliminating competition as the provisions of the codes themselves would suggest. In others, actual practice went beyond the privileges granted by the codes, usually without the knowledge or approval of the N. R. A. In almost every case the more extreme grants of power were conditional, requiring further authorization by the administration or being subject to its veto. During the later months of the experiment, moreover, certain provisions of the type that had been written into the earlier codes were no longer granted, many privileges that had been conferred for a limited term were not renewed, and numerous applications for the approval of activities requiring specific sanction were denied. N. R. A. policy was moving away from the liberal authorization of noncompetitive practices that had characterized its earlier days.

The codes were invalidated by the decision of the Supreme Court in the *Schechter case* in 1935. But their provisions are still significant. In some cases they had their origin in the activities carried on by trade associations prior to 1933. They have persisted in some cases in the activities carried on by such associations since 1935. In certain areas, they have been reenacted into law. In others, such

reenactment has been proposed. The policies embodied in the codes still command the support of a segment of the business community. The movement toward "self government in industry" has been checked, but not reversed. The logical outcome of this movement, as it is revealed by the contents of the codes, is the collective determination of prices, the curtailment of output, the allocation of markets and production, and the enforcement of these arrangements by the imposition of penalties; in short, the complete cartelization of American business.

EXPORT ASSOCIATIONS

European producers have long been permitted and even encouraged to combine for joint action in the export trade. American producers before 1918 were prohibited by the provisions of the Sherman Act from so doing. It was consequently argued that this situation prevented the expansion of American exports by compelling American firms to act independently when competing with and when selling to foreign firms which were united in cartels. In response to this contention, Congress in 1918 passed the Webb-Pomerene Export Trade Act, exempting from the provisions of the antitrust laws any association entered into for the sole purpose of engaging in export trade and actually engaged solely in such export trade * * *

thus legalizing the formation of export cartels in the United States. The act expressly forbade collective action within the domestic market, approving it only for foreign sales, and only

provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association. And provided further, that such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy to do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein.

Associations were directed to file their charters, bylaws, agreements, and other data with the Federal Trade Commission and to make periodic reports to that body. The Commission was not authorized to issue orders to cease and desist from violations of the law, but it was permitted to investigate association activities, to recommend readjustments that would keep such activities within the scope of the exemption granted by the law, and where deemed necessary to refer its findings and recommendations to the Attorney General for action.

The number of export associations formed between 1918 and 1940 was 120, the number on file with the Commission at the end of each year ranging from 43 to 57 with an annual average of 50. Of the 74 associations which were liquidated before 1940, 39 had been in existence for more than 5 years and 13 for more than 10 years. Of the 44 associations surviving in 1940, 30 were more than 10 years of age and 14 were more than 20 years of age.

The value of the goods exported by such associations rose from \$75,000,000 in 1919 to \$724,000,000 in 1929, fell to \$143,000,000 in 1933, and had risen to \$198,000,000 in 1937. Associations handled 17 percent of American exports in 1930, 13 percent in 1931, 9 percent in 1932 and 1933, 7 percent in 1934, and 6 percent in 1935, 1936, and 1937.

The direction in which export associations have developed has been influenced by the liberal interpretation which the Federal Trade Commission has placed upon the law. Most of the earlier associations were operating agencies, making sales abroad, allocating orders at home, assembling and shipping goods, making collections, and remitting payments to their members. It was generally assumed that mere price and quota agreements did not fall within the scope of the exemption granted by the act. In 1924, however, the Commission, in response to an inquiry from a group of silver producers, declared that—

The act does not require that the association shall perform all the operations of selling its members' product to a foreign buyer * * * an association may, without necessarily involving conflict with the act, be engaged in allotting export orders among its members and in fixing prices at which the individual members shall sell in export trade.

A majority of the associations formed subsequent to the publication of this statement have left to their members the work of making sales, shipping goods, and collecting payments, themselves undertaking to fix prices or to assign quotas or both. In the course of the same opinion, the Commission asserted that—

there seems to be no reason why a Webb-Pomerene association composed of nationals or residents of the United States and actually exporting from the United States, might not adopt a trade arrangement with non-nationals reaching the same market, providing this market was not the domestic market of the United States and the action of this organization did not reflect unlawfully upon domestic conditions.

Many American export associations subsequently accepted this open invitation to participate in international cartels.

The reasoning behind this legislation has not escaped criticism. Even though foreign firms are permitted to unite in cartels, it does not necessarily follow that American exports will suffer unless their American competitors are also permitted to do so. Cartels are likely to curtail sales, share markets, and raise prices. The cartelization of foreign firms should therefore make it easier, rather than more difficult, for their American rivals to undersell them. Cartels, to be sure, may sometimes follow the policy of charging high prices in tariff-encircled home markets and dumping at low prices in freer markets. In such a case, a competing American association, adopting a similar pattern, might capture the latter markets by dumping at prices even lower than those charged by its foreign rivals. But it would also attempt to recoup its losses by combining to raise prices within the United States, a project which the act specifically condemns. American associations, in either case, can participate in international cartels, organized for the purpose of raising prices in world markets. But this does not appear to be the most promising method of promoting foreign sales. Expansion of exports is to be encouraged by other means, notably by the reduction of tariffs and other barriers to trade.

Doubt has been expressed, too, that firms can assign quotas and fix prices in foreign markets without influencing prices in the domestic market; that they can combine for sales abroad without abandoning competition at home. Collective decisions governing the volume of exports must inevitably affect the volume of domestic sales, or the volume and cost of production, and thus the prices which domestic

consumers are required to pay. Territorial cartels that grant each group of producers exclusive occupancy of its national market, thereby placing a complete embargo on foreign goods, afford domestic monopoly greater protection than does a tariff, which allows some goods to pass. Export associations might conceivably engage in activities affecting local prices without committing those overt acts that would bring them into open conflict with the law. Prices agreed upon in making foreign sales might be adopted, without formal collusion, in making sales at home. It may be doubted that the vigilance of the Federal Trade Commission can keep the left hand of industry from knowing what its right hand is doing. Competitors with common offices, adopting common policies, may not succeed completely in attaining that singleness of purpose which the law requires.

Of the operation of Webb-Pomerene associations, in general, and of their consequences, little is known.⁸ No comprehensive study of the subject has been published after an experience of more than 20 years. The Federal Trade Commission lists the names of the associations on file and gives the total value of their exports in its annual reports. Beyond this, it vouchsafed in 1935: "No case has arisen in which an association has refused to comply with recommendations of the Commission; and no violations of law have been referred by the Commission to the Attorney General."⁹

⁸ See Temporary National Economic Committee Monograph No. 6, *Export Prices and Export Cartels (Webb-Pomerene Associations)*, Washington, 1940.

⁹ Federal Trade Commission, *Practice and Procedure under the Export Trade Act*, p. 3.

CHAPTER V

TECHNOLOGY IN OUR ECONOMY ¹

Technology refers to the use of physical things to attain results which human hands and bodies unaided are incapable of achieving. In this sense, technology reaches back to the beginnings of human culture, has always played a highly significant role in social evolution, and will remain a mainstay of civilization.

If the present period is peculiarly technological, it is not solely because of its own technical creations, important as these are, but because it is the recipient of an accumulation of technical resources that have been piling up through the centuries. What was once a thin thread in the evolution of culture has now become a gigantic strand, binding and sustaining a colossal economic system, and transmitting its releases and tensions throughout the entire body of contemporary culture. Technology, an historical development without general plan or purpose, has come to dominate the pattern of modern living. Benefits and disadvantages are consequently intermingled and interspersed within the complexities of the current situation, and await analysis and evaluation from some central viewpoint grounded in considerations of economic health and human well-being.

The emergence of technology in the history of western culture is suggestively indicated by lists of inventions which have been compiled by interested students and identified with the centuries in which they appeared. Such a list was presented before the Temporary National Economic Committee.² It includes only those innovations, chiefly inventions, which have been of major importance for modern industry.

The number of major industrial inventions assigned to the centuries beginning with the tenth follow:

Century:	<i>Number of inventions</i>	Century—Continued	<i>Number of inventions</i>
Tenth.....	6	Sixteenth.....	15
Eleventh.....	4	Seventeenth.....	17
Twelfth.....	10	Eighteenth.....	43
Thirteenth.....	12	Nineteenth.....	108
Fourteenth.....	17	Twentieth (through 1927) ..	27
Fifteenth.....	50		

The catalog begins with a reference to inventions and discoveries of the period prior to the tenth century, among which are mentioned

¹ This chapter is based largely on Temporary National Economic Committee Monograph No. 22, *Technology in Our Economy*, by Dr. Dewey Anderson, Dr. Lewis L. Lorwin, and John M. Blair, assisted by Ruth Aull. It has been arranged by the Temporary National Economic Committee staff, critically reviewed by Dr. Theodore J. Kreps, professor of business economics at Stanford University, and Dr. Corwin Edwards, economic consultant, Department of Justice, Washington, D. C.

² Hearings before the Temporary National Economic Committee, Part 30, exhibit 2428. The list was derived from Lewis Mumford's *Technics and Civilization*, 1934, pp. 438-446, and from *Recent Social Trends*, 1932, pp. 135-148.

the domestication of fire, the invention of the inclined plane and the screw, the improvement of native grasses for food, the origin of thread, cord and rope, of irrigation and soil regeneration, of cattle breeding and the use of the horse for transport, the invention of glass, pottery and basket making, of power machines such as water mills and boats with sails, of bow drills and lathes, paper, and tools with cutting edges. Such items show the debt of later centuries to the inventive genius of earlier times.

But a chronological catalog of technological items fails to indicate their social-historical role. While technology has an organic tradition of its own, it is always integral to some cultural "complex," phase, or epoch, and as the latter alters through time the role of technology alters with it. What technology is or does depends upon the essential characteristics of the contemporary social order at any time and place—the discovered and available kinds of raw materials, the recognized forms of physical energy, the technical heritage, the ownership or control of these things; the character of the available labor force; the nature of the "economy," whether capitalist, collective, or otherwise; the composition and objectives of ruling classes; current standards of living and the classes that correspond with them; prevailing popular habits of taste, ambition, and apprehension, whether animistic, magical, or scientific; the situation in the non-economic regions of the culture—religious, domestic, ceremonial, artistic, etc. Technology is interwoven and interrelated with these and all other elements in the prevailing order of things, which are either congenial, indifferent, or hostile to the influence it radiates.

Limitation of space prevents more than a mere listing of certain conspicuous trends in and examples of current industrial technology which at the moment record the culmination of antecedent history.

POWER AND ENERGY

In power, from steam to electricity.
In fuels, from coal to oil and natural gas.

USE OF MATERIALS

From textiles to paper.
From natural to synthetic products (e. g., the substitution of rayon for silk, vanillin for vanilla beans, sodium silicate for dextrin and glue, lacquers for varnish, synthetic for natural camphor, aspirin for quinine, etc.).
From forged steel to alloy steels.
From Portland to quick-setting cement.
From manufactured ice to refrigeration.
From wood to metals (e. g., in tools, presses, water pipes, cylinders, household furnishings, vats, barrels, gearing, pumps, lathes, etc.).
From wood as a source of derivatives to chemical substitutes (e. g., methanol, acetic acid, acetone).
From metals to plastics (in adhesives, watch crystals, automotive and airplane parts, telephone equipment, etc.).
Waste products as sources of derivatives.

MECHANICAL PROCESSES

Multiple-function machinery (e. g., the replacement of old hand mill by the strip mill in iron and steel manufacture; for pouring metal into molds, avoiding beating, hammering, pounding, pressing, and other operations; the one-piece stamping process in automobile production; the dial telephone).

NONMECHANICAL PROCESSES

The utilization of chemical attraction in the conversion of ores, in smelting and refining operations, in grinding operations, and in the reverberatory furnace; the magnetic separation of ores; organic accelerators in the rubber tire industry; the substitution of welding for riveting; the chemical bleaching of pulp in paper making, etc.

INDIVIDUAL SINGLE-FUNCTION MACHINERY

Involving the elimination of hand operations, the increase of speed in the machine, enlargement of capacity.

MANAGEMENT METHODS

Selection and training of workers, rest pauses, incentive remuneration, the analysis and division of industrial work processes into component motions, extension of this method to groups.

The straight-line system of production, a chain of workers on one unit of product.

STANDARDIZATION

Reduction of the variety of goods effecting an increased production of the standardized articles at smaller cost per unit.

INCREASE OF OUTPUT

Involving a diminished cost per unit of output.

A reference to one point in the history of technology cannot be omitted. This was the period of its acceptance and exploitation by the system of private capitalism, which antedated it and incorporated it within the structure of capitalism itself. The techniques of capitalism—those of a money economy—took form in the fourteenth century. It was an economy of acquisition rather than one of need. Everything salable and purchasable was converted into a money medium. Qualitative differences in commodities were subordinated to a numerical monetary symbolism which later shaped and was shaped by the abstractions and principles of science and technology.³

Thus, capitalism and technology are clearly distinguishable, although the two have been intimately associated during the period of their common history. Prior to this, technology had made gains without capitalist support, and elsewhere capitalism has existed in cultures with a relatively undeveloped technology. In the historical association of the two, each conditioned the other. The capitalist accumulated the necessary funds wherewith technology was exploited, broadened the range of its effects, hastened the productive process for a more rapid return of income, and found new areas for technical applications; the inventor devised new methods and materials of production and thought of new things to be produced. There was a conflict of interest between the two at times, but since the capitalist was the partner with the controlling resources, his will in the long run had the right-of-way.

The fundamental interest of the capitalist in the utilization of technology was private profit. Capitalism has had the effect of speeding up the development of machinery and of promoting incessant changes and improvements. This rapid tempo of change, required by the

³ On this and points to follow, see Lewis Mumford, *Technics and Civilization*, pp. 26-28, ff.

process of competitive capitalism itself, has undoubtedly done much to make the modern age an unstable and dynamic one. The rapidity of its technical advances under capitalist stimulus has been so great that the controls necessary to their better social employment have often lagged behind, so that the machine is today still employed for medieval and even barbarous purposes. War is not the only manifestation of this kind, however. Any modern invention of consequence will be found exploited in some measure by those whose social conscience is relatively primitive. Common modes of recreation, prevailing styles of advertising, the inability of the law to protect the consumer from flagrant abuses, callous and even inhuman management of the technical resources of the economy itself, all testify to a hold-over of crude forms of competitive individualism which in spirit contradict the more civilized aspirations of science, invention, and engineering.

Modern capitalism is not a planned economy. It grew out of history by reason of the short-run self-interested purposes of innumerable enterprisers. It derived its peculiar characteristics from the conditions and circumstances of its origin and development. But it did in time evolve an ideology with the help of great economic thinkers who gave it a social meaning and justification, and it had a certain congeniality with the principles of historical democracy.

It cannot be said that the social conception of capitalism has been widely embraced. Enterprisers are still prone to think of it as having its own inherent justification and sanctity. But this is not true of those who have carried the logic of democracy to its economic implications. In this logic an economic system is a service and not an autonomous institution.

Business is not merely nor even in the first instance a struggle of individuals for wealth. It is a way of life, a system of providing goods and services. It is not a segment of the community, cooperating or warring with other segments such as labor, consumers, or farmers. It is not superior or inferior to the community. It is the community engaged in getting its daily bread. Its goals, its ethics, its welfare are inseparable from the goals and aspirations and welfare of the community. No matter how much nor how often the business phases of social or community activity may be abstracted, analyzed and separately discussed, the fundamental and organic unity between business and the community is indissoluble.⁴

This defines the problem of technology in the current situation and points to the issues that must be resolved in the future. Technology is relatively neutral; the more dynamic forces lie within the economic system that controls it. If this system is socially wholesome, its employment of technology will be socially advantageous; if it is less than this, its influence will be uneven—rendering benefits here, disadvantages there, as the prevailing cluster of conflicting economic forces may decide. An audit of modern technology must especially consider its relations with business. It cannot be studied in isolation.

In this chapter technology is viewed in relation to the consumer, the worker, the investor and the enterpriser. This does not mean that the interests of any one group can be isolated from those of others or from the presiding interest of the entire economy. But it

⁴ Temporary National Economic Committee Monograph No. 7, *Measurement of the Social Performance of Business*, by Theodore J. Krepes, p. 1.

does testify to the fact that the first or more direct impact of the several applications of technology falls upon one group rather than another, and that the interests of the several groups are not always in harmony. It may also serve to draw attention to the nature of the conflict involved and to the necessity of resolving it in the common interest.

TECHNOLOGY AND THE CONSUMER

The consumer's interest in technology is treated under: (1) The trend in productivity—the degree in which technology makes for a more economical use of labor and capital in the creation of a given aggregate of goods and services; (2) the trend in production—whether the volume of goods and services actually produced corresponds with the volume that might reasonably be expected from existing productive efficiency; (3) the trend in prices—the degree in which a lower cost of production attributable to technology is reflected in lower charges to the consumer; and (4) the degree in which lowered prices made possible by technology benefit the various income classes.

Productivity as Labor-saving.

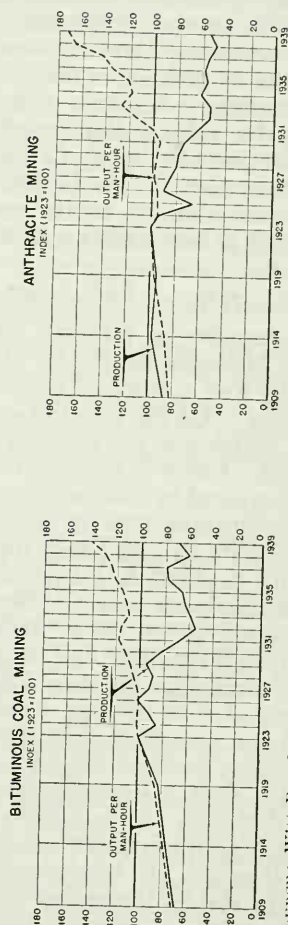
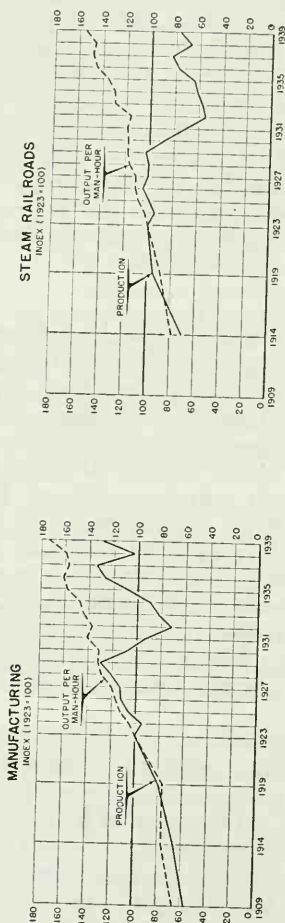
A number of methods of measuring change in productivity have been distinguished.⁵ Of these volume of physical output per wage earner and volume of output per man-hour have been used most frequently. Of the two the second is more exact because the validity of this measure is not affected by changes in hours worked or changes in prices. Labor is regarded simply as the number of hours worked.

Comparable data are available in man-hour output for the years 1909 through 1939 in manufacturing, bituminous coal mining, and anthracite mining, and for the years 1914-39 in steam railroads, as shown in chart XII, table 7. In these four important segments of the economy labor productivity has made striking advances, reaching an all-time high in 1939. It has been relatively unaffected by the major cyclical downturns and, except for a few brief interruptions, has steadily increased. In three of the fields the rate of advance has greatly accelerated in the last decade.

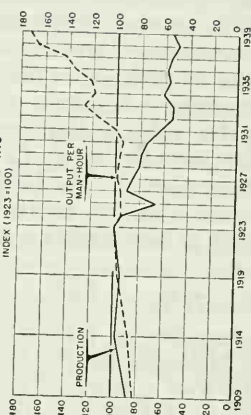
A more explicit indication of increasing productivity in these four fields is shown in table 8, where the percentage change in production and in man-hour output for the period 1923-29 is compared with that of 1929-39. In the earlier period an increase of 31.9 percent in labor productivity in manufacturing was matched by a rise of 30.1 percent in production. In bituminous coal mining labor productivity remained fairly stable, increasing only 8.1 percent, while production decreased 5.3 percent. Labor productivity in anthracite mining actually declined 3.6 percent, while production went down 20.9 percent. In steam railroads an increase of 18.2 percent in labor productivity was accompanied by a rise of 3.3 percent in production.

⁵ These are considered in Temporary National Economic Committee Monograph No. 22, Part I, and in Part II, appendix A. For a discussion of the concept, man-hour productivity, see Spurgeon Bell, *Productivity, Wages, and National Income*, Brookings Institution, 1940, p. 200 ff.

CHART I
PRODUCTION AND PRODUCTIVITY IN THE UNITED STATES
 SELECTED INDUSTRIES FOR SELECTED YEARS
 1909-1939



ANTHRACITE MINING
 INDEX (1923=100)



SOURCE: Witt Bowder, Wages, Hours, and Productivity of Industrial Labor, 1909-39, U. S. Bureau of Labor Statistics, Monthly Labor Review, September 1940.

TABLE 7.—*Indexes of production and productivity, 1909-39*

[1923=100]

Year	Manufacturing		Steam railroads		Bituminous coal mining		Anthracite mining	
	Production	Output per man-hour	Production	Output per man-hour	Production	Output per man-hour	Production	Output per man-hour
1909.....	56.5	66.2			67.2	70.1	86.9	81.9
1914.....	66.5	76.4	69.8	78.2	74.9	77.8	97.3	86.8
1919.....	79.3	76.4	94.8	88.6	82.5	85.8	94.4	96.6
1923.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924.....	94.3	105.8	94.3	103.0	85.6	101.7	94.2	94.4
1925.....	106.5	113.2	99.2	108.5	92.1	101.0	66.2	94.9
1926.....	112.5	116.9	104.8	111.1	101.6	100.3	90.5	95.4
1927.....	113.3	120.8	101.0	110.8	91.7	101.6	85.9	98.3
1928.....	121.2	129.5	100.8	116.3	88.7	105.3	80.7	98.1
1929.....	130.1	131.9	103.3	118.2	94.7	108.1	79.1	96.4
1930.....	107.6	131.6	88.7	118.0	82.8	112.8	74.3	94.0
1931.....	93.7	141.3	71.6	118.8	67.7	118.0	63.9	100.2
1932.....	71.1	137.7	54.4	116.1	54.8	115.9	53.4	115.0
1933.....	81.7	144.8	57.0	129.3	59.1	110.0	53.0	126.4
1934.....	89.1	147.9	61.7	130.1	63.6	111.9	61.3	118.5
1935.....	107.7	158.8	64.6	135.9	65.9	115.4	55.9	121.3
1936.....	127.6	161.8	77.8	145.7	77.8	121.5	58.5	135.1
1937.....	134.4	157.5	83.1	148.5	78.9	124.8	55.6	142.8
1938.....	103.6	159.8	67.7	146.8	60.6	130.4	49.4	166.1
1939.....	129.5	174.5	76.7	154.9	69.1	142.1	54.4	172.6

Source: Witt Bowden, "Wages, Hours, and Productivity of Industrial Labor, 1909-39," U. S. Bureau of Labor Statistics, Monthly Labor Review, September 1940. Production figures computed by Witt Bowden in connection with output per man-hour indexes. Original data for manufacturing from the National Bureau of Economic Research, Federal Reserve Board, and the U. S. Bureau of Labor Statistics; for steam railroads from the Interstate Commerce Commission; and for bituminous and anthracite mining from the U. S. Bureau of Mines and the U. S. Bureau of Labor Statistics.

TABLE 8.—*Percent change in production and labor productivity 1923-29 and 1929-39*

Period	Production	Man-hour output	Period	Production	Man-hour output
	Manufacturing			Bituminous coal Mining	
1923-29.....	+30.1	+31.9	1923-29.....	-5.3	+8.1
1929-39.....	-1.5	+32.3	1929-39.....	-27.0	+31.5
	Steam railroads			Anthracite mining	
1923-29.....	+3.3	+18.2	1923-29.....	-20.9	-3.6
1929-39.....	-25.8	+31.0	1929-39.....	-31.2	+79.0

Source: Table 7.

But during 1929-39 the pattern was entirely changed. Declines in production were coupled with remarkable advances in labor productivity. In manufacturing, productivity advanced 32.3 percent while production went down 0.5 percent. In bituminous coal, labor productivity increased 31.5 percent, but production declined 27 percent. In anthracite mining a similar decline in production (31.2 percent) was overbalanced by an increase in labor productivity of 79 percent. In steam railroads, labor productivity went up 31.0 percent, while production declined 25.8 percent.

Labor productivity increased much more rapidly during 1929-39 than during 1923-29 in steam railroads, bituminous coal mining, and anthracite mining, as the comparison of the two figures in the right-hand column of the table under each of these heads clearly indicates. Only in manufacturing was the increase in 1923-29 at all comparable with that of 1929-39. This long-term increase in labor productivity is remarkable because increases in output per man-hour occurring between 1929 and 1939 were achieved despite a lower level of output in the latter year.

Of equal interest is the extent of the changes in labor productivity in specific manufacturing industries. In table 9, indexes are shown of output per man-hour in 40 of the 59 industries reported by the National Research Project for which man-hour data were available.⁶

TABLE 9.—*Indexes of output per man-hour, 1929, 1936, 1939; 40 manufacturing industries*

[1923=100]

Industry	1929	1936	1939
Agricultural implements.....	130.4	153.8	-----
Beet sugar.....	127.9	¹ 162.4	-----
Boots and shoes.....	123.5	168.8	172.5
Bread and other bakery products.....	102.7	107.7	113.8
Cane-sugar refining.....	120.0	167.2	-----
Canned and preserved fruits and vegetables.....	103.6	145.6	-----
Canned and cured fish.....	108.7	¹ 169.2	-----
Cement.....	129.0	165.5	180.0
Chemicals.....	153.6	181.6	-----
Clay products, other than pottery.....	109.5	105.0	117.1
Cotton goods.....	105.3	139.9	146.7
Fertilizers.....	113.6	138.9	-----
Flour and other grain-mill products.....	131.4	132.6	-----
Furniture.....	130.0	126.5	140.3
Glass.....	116.3	188.8	-----
Ice cream.....	129.9	190.8	-----
Iron and steel.....	136.6	153.0	187.2
Knit goods.....	114.4	¹ 166.2	-----
Byproduct coke.....	120.0	119.9	-----
Leather.....	105.8	136.0	-----
Logging camps.....	119.0	151.7	-----
Sawmills and saw-plane mills.....	113.5	142.8	-----
Manufactured ice.....	108.0	¹ 152.8	-----
Motor vehicles.....	143.3	161.3	166.9
Newspapers and periodicals.....	122.4	148.1	140.0
Primary smelters and refineries.....	152.0	136.9	-----
Alloys, rolling mills, and foundries.....	155.3	¹ 133.2	-----
Paints and varnishes.....	110.1	133.8	-----
Paper manufacturing.....	120.2	142.8	168.1
Pulp manufacturing.....	145.1	195.2	² 229.7
Petroleum refining.....	140.1	221.0	259.9
Planing mill products.....	115.2	¹ 112.0	³ 114.7
Rubber tires and tubes.....	167.2	304.7	-----
Other rubber goods.....	104.4	¹ 127.7	-----
Silk and rayon goods.....	138.3	¹ 212.0	-----
Slaughtering and meat packing.....	107.0	117.8	129.4
Cigars.....	121.7	190.4	-----
Cigarettes.....	182.5	248.7	-----
Chewing and smoking tobacco.....	126.3	157.1	-----
Woolen and worsted goods.....	105.7	153.7	166.1

¹ 1935.

² 1938.

³ 1937.

Source: Works Progress Administration, National Research Project, Production, Employment, and Productivity in 59 Manufacturing Industries, 1919-36, pt. II. The 1939 figures were projected by the National Research Project staff and transmitted by letter to the Temporary National Economic Committee. For the 15 industries with 1939 figures the 1936 figures are revised.

Changes are indicated from the base year 1923, to 1929 and 1936 for each of the industries. It was also possible to project the series forward to 1939 for 15 of the industries.

⁶ Wherever possible, data were secured relating to specific industries rather than to industry groups. In the case of leather, in order not to overweight the table by the inclusion of five specific leather industries, the entire leather industry is utilized.

Productivity increased in each of these industries over the base year in both 1929 and 1936. It likewise increased between 1929 and 1936 in most of the industries. In contrast, production in 1936 was below the 1929 level in two-thirds of the 40 industries as reported by the National Research Project. Despite this generally lower level of production, output per man-hour in 34 industries was higher in 1936 than in 1929, strikingly indicating the intensity and rapidity with which technological improvements were introduced during that 7-year period.

Indexes are available for man-hour productivity in mining including petroleum and natural gas, and for the electric light and power industry.⁷ The former shows a rapid and fairly steady over-all increase from 1919 to 1938 amounting to 130 percent, associated with a peak production increase in 1929 of 20 percent, which was not exceeded in 1937. A similar and still more striking over-all increase in productivity occurred in the electric light and power industry from 1920 to 1938, amounting to over 120 percent, associated with an increase in output reaching 170 percent, which embraced a decline of some 16 percent only for the depression years 1931-33. The unlike trends in these two industries show a striking difference in the relation of production to productivity. In the one, production failed to keep abreast of productivity after 1929. In the other, the depression reduction was only a temporary decline in a rapidly mounting output.

A National Research Project study indicates that during the period 1921-37, as a whole, productivity measured in terms of output per worker showed about the same general gains in agriculture and manufacturing. But from another study using the same measures, it appears that the statement needs some qualification. This indicates that while agriculture made little or no gains from 1900 to 1910, manufacturing output per worker increased 17 percent. From 1910 to 1920 the situation was somewhat altered. Agriculture gained 19 percent, manufacturing 12 percent, and mining 34 percent. The over-all gain for the first 30 years of the century was 41 percent in agriculture, 63 percent in manufacturing, 47 percent in mining. It is to be recalled in this connection, however, that output per worker is not a precise measure of productivity.

Farmers have difficulty in retaining their productivity gains. This is due to the large number of farmers who individually have no way of influencing prices, and to the tendency of production to outrun the consumption of farm products. Increased production, therefore, tends to depress prices below corresponding price levels in industry, where controlled prices are not infrequent. Since current technological developments increase the farmer's dependence upon industrial products this problem is not a diminishing one.⁸

The data canvassed relate to representative sections of manufacturing, to bituminous coal mining, anthracite mining, the steam railroad industry, mining (including petroleum and natural-gas production), the electric light and power industry, and agriculture. A substantial segment of the total economy is thus represented. In all

⁷ Spurgeon Bell, *op. cit.*, pp. 67, 74, 274, 277.

⁸ U. S. Department of Agriculture, *Technology on the Farm*, August 1940, pp. 72-73.

these fields striking long-run gains in productivity are indicated, extending even throughout the depression period, with one exception.

While it cannot be concluded beyond question that corresponding gains have been made throughout the entire economy, indications favor the belief that they have. One reasonably concludes that the employment of technology in all types of production has raised the productive efficiency of the American economy to high and unprecedented levels.

Productivity as Capital Saving.

Productivity may be increased by a relatively small capital investment in equipment that, at the same time, makes comparatively slight demands upon labor. For example, the production of industrial instruments involves little labor, yet they have proved most effective in increasing output. The development of controlling devices which safeguard machinery against breakdowns and excessive wear has lessened greatly the continual demand for capital goods caused by rapid obsolescence. Industrial instruments not only reduce the volume of replacement orders in the capital goods industries but they also make possible careful analyses of existing industrial equipment to determine whether it is being used to its fullest capacity. In many cases greater productivity is secured merely by operating existent equipment at a higher tempo.

The use of new alloys for metal tools and parts is another method of enlarging production which exerts only a small demand on capital goods. Many new chemical processes are put into operation with extremely small capital expenditures. The new carboloy cutting tool, a mixture of tungsten and tantalum carbides, is able to withstand the wear of high-speed machine cutting with great resistance to high temperature much beyond the capacity of its predecessors. If an industry requiring a saw in its production uses one with carboloy teeth, it would exert a much smaller demand on capital goods.

The great adaptability of many existing techniques is similar to capital-saving innovations in their effect upon employment in the capital goods industries. Numerous techniques can readily be changed, after turning out one type of goods, to produce a comparatively unrelated and often dissimilar product. This obviates the necessity of acquiring new equipment. If a considerable proportion of our potential new products could be produced in large quantities merely by slightly readjusting or rearranging existing techniques, the demand for capital goods—and the labor involved in their production—would be correspondingly lessened.

This adaptability has recently been impressively demonstrated by the fulfillment of requirements for the national defense program. Certain techniques are so adaptable that with practically no capital outlay they have easily been shifted from the production of peacetime goods to the manufacture of unrelated wartime products.

Three examples of the great adaptability of general-purpose techniques deserve special attention: (1) Without any change whatever in the process, welding has been applied to the large-scale manufacture of airplane bombs formerly produced from forgings. Gun carriages are now made by means of structural welding in place of the former method which involved forging, casting, and riveting. (2) The punch press has been easily adapted to the manufacture of clips for rifle bullets and of all types of standard quartermaster hardware-belt

eyelets, etc. Draw presses, originally designed to produce acetylene gas bottles or large milk cans, are now turning out cartridge cases in great numbers. (3) The automatic screw machine is capable of making practically any small metal part in enormous quantities. Its value to national defense is chiefly in the production of fuses, boosters, and primers of ammunition. As in the case of the press and of welding, the screw machine was adapted to this new use with practically no capital outlays.

Farm implement manufacturers readily adapted their processes to the production of small gun carriages, transmissions for tanks, and machine-gun tripods. Equipment for the production of printing presses was found readily adaptable to the manufacture of gun carriages, gun tools, and recoil mechanisms. Makers of heavy Diesel engines went readily into the production of cannon and mountings for cannon, while crane and shovel firms shifted to the manufacture of gun carriages and railway mounts. Similarly, locomotive producers found that with little added expense they could turn out gun carriages, and the transmission, driving, and track mechanisms of tanks. Manufacturers of heavy electrical equipment shifted to the production of such diversified goods as turbines, drive shafts for destroyers, cannon, and gun carriages.

Manufacturers of cash registers and adding machines changed to the production of bomb fuses. Factories formerly producing ladies' underwear shifted to mosquito netting for troops in the field. Makers of vacuum cleaners transformed their processes to the mass production of gas masks. Among the more unusual adaptations was the change by manufacturers of church pipe organs to the production of wooden framework for army saddles. Likewise, firms which had been making lathes to turn out wooden ducks for shooting galleries went readily into the production of lathes for Army shoes.

It is evident that (1) industries can develop and greatly increase their production by using capital-saving innovations, and (2) the production of new and different products can often be effected merely by minor changes in existing techniques.

Production.

Modern technology has affected many segments of the economy and a notably increased productivity has been general. If these productive advantages had been well used, there would have been no decline in output of goods and services in recent decades, but on the contrary a steady expansion of this output, except in declining industries, for the reduced cost per unit would have induced additional production in all commodities and services the demand for which was elastic, with which must be included the production required by a growing population.

Dr. Frederick C. Mills records estimates of the rate of increase of manufactured output prior to the first World War. From 1901 to 1913, "the output of manufactured goods in the United States advanced at a rate of approximately 3.9 percent a year; the volume of raw materials produced increased at an average rate of 2.2 percent a year"²—a rate comfortably in excess of the rate of growth of population (2.0 percent a year). The margin of approximately 0.6 percent a year represents the increase in volume of consumption goods avail-

² F. C. Mills, *Economic Tendencies in the United States*, National Bureau of Economic Research, New York, 1932, p. 12.

able, per capita of the population, for raising the standard of living.

In his explanation of this growth in physical volume of production in manufacturing during this period, Dr. Mills charges it to an annual increase in the number of wage earners averaging 2.2 percent, together with an average annual increase of 1.7 percent in productivity, the latter being measured in terms of output per wage earner, without including the salaried personnel and with no allowances for changes in the number of hours worked per week and of other factors, the possible presence of which the writer acknowledges.¹⁰

For the period 1922-29 Dr. Mills makes similar estimates. The average annual rate of increase in volume of production of movable goods excluding construction was 3.8 percent, the population rate 1.4 percent, the per capita increase 2.4 percent. Again the per capita increase in production exceeds the population rate. Both aggregate and per capita increases in production were higher than in the prewar period 1907-13. With respect to services rendered and not embodied in measurable output, while the rate of advance of production of this nonmaterial type cannot be estimated with any accuracy, the writer affirms there is reason to believe that this was growing in relative importance. "There are clear signs here," says Dr. Mills, "of the growing emphasis upon technical efficiency and enhanced productivity per unit as factors of increased production, an emphasis which has been even more pronounced in recent years."¹¹

The rate of growth was unlike in different sectors of the economy. The output of raw materials increased at an annual average rate of 2.5 percent; manufactured goods at a rate of 4.5 percent. Farm products advanced at a rate of 2.0 percent a year, nonfarm products at 5.1 percent. Within these major groups there were also wide divergences in the rate of growth of individual industries, and great differences marked the production of consumption goods during the period.¹²

The rate of production for the last two decades has been shown for four segments of the economy by indexes based upon the years 1923-25 (at 100).¹³

	1919	1929	1932	1937
Manufacturing.....	84.8	127.7	70.9	124.2
Class I railroads.....	95.5	105.6	55.8	84.9
Minerals (including petroleum and natural gas).....	76.3	120.7	74.8	117.0
Electric light and power.....	65.2	170.6	160.8	237.8

¹ Figure for 1920.

For three of these important segments of the economy the curve by years has a somewhat uniform shape, showing a positive over-all increase from 1919 to 1929, a sharp decline for the low depression years, and a sharp increase to 1937 which did not reach the 1929 figure. The exception is the electric light and power industry, whose depression decline was not serious and whose revival figure at 1937 (and 1938)

¹⁰ Ibid., pp. 21-22.

¹¹ Ibid., pp. 38, 39.

¹² Ibid., p. 264 ff.

¹³ Spurgeon Bell, *Productivity, Wages, and National Income*, 1940, pp. 53, 63, 67, 78, 270, 273, 274, 277.

greatly exceeded that of 1929. As indicated by chart XII, table 7, indexes for four industries—selected manufactures, steam railroads, bituminous coal mining, and anthracite mining—show a sharp minor decrease in 1938 followed by a revival in 1939 which did not attain the 1937 figure in any case.¹⁴ In the selected manufacturing industries, however, the index figure for 1939 closely approximates that of 1929.

In agriculture, indexes for the years 1919–38 show a gradual increase in production to 1931, with moderate depression losses. The year 1937 marked the all-time high in agricultural output, with a reduction of only 2 percent for the year 1939.¹⁵

The national income is the sum of all goods and services for a given year measured in dollars. Changes in this income over a period of years can be measured in dollar values current in each year, or in terms of constant dollars, using the prices of 1 year as a base. In the latter case, the national income may be thought of as volume of physical output.

When the index line for the national income in constant dollars (1926=100) is charted for the years 1850–1937, it marks a slow and steady rise for the first 30 years, from about 5 percent of the 1926 figure to about 15 percent. Thereafter the line rises steadily and more sharply showing almost a 100 percent gain from 1880–1929, which embraces a sharp slump in the period 1917–20. The low depression index figure is 82 for 1932. The recovery years restore the upward trend, until the index reaches 107.9 in 1937, about 1 percent above the 1929 index figure. In general, the national income since 1850 has shown a steady and accelerated growth, except for two depression dips.

The losses from 1929–38 were exceedingly serious. They have been estimated as follows (money values in constant dollars):¹⁶

In the national income-----	\$132, 600, 000, 000
In gross farm income-----	38, 400, 000, 000
In wages and salaries (nonagricultural)-----	119, 354, 000, 000
In dividends-----	20, 100, 000, 000
In man-years of employment-----	43, 435, 000

These estimates presuppose that the conditions of 1929 might have been maintained and are based on this assumption. The employment figure takes no account of an increased population of 6,000,000 over that of 1929. The significance of the losses is recognized when they are compared with the figures of the prosperous year 1929. The loss in salaries and wages was 50 percent greater than the total national income paid to farmers, businessmen, labor, and others in 1929. The loss to investors was 3 times the sum of dividends disbursed in that year. The loss to farmers was 3 times the amount all farmers received for their products in the year 1929. The total loss to the national income was about \$133,000,000,000 as compared with the 1929 income of \$81,000,000,000. The loss in man-years is practically the equivalent of 2 years and 2 months, presupposing a gainfully employed population equivalent to that of 1929.¹⁷

Very heavy depression losses, and a failure to recover the rate of gain in production of the pre-depression period show unmistakably

¹⁴ See pp. 110–111, *supra*.

¹⁵ See Temporary National Economic Committee Monograph No. 7, p. 54, chart 23; and Temporary National Economic Committee Monograph No. 23, p. 39, table 10.

¹⁶ Hearings before the Temporary National Economic Committee, Part 1, Economic Prologue, pp. 3–19; 196–197.

¹⁷ *Ibid.*, pp. 3–19, testimony of Dr. Isador Lubin.

that since 1929 production has been unable to realize the promise of existing potential productivity. The reasons for this are undoubtedly to be found in an economic system which is as yet maintaining severe restraints upon this productivity instead of releasing it.

Productivity and Prices.

A fundamental tenet of historical economic theory assumes that any lowering of cost in the production of a commodity in the long run results in the lowering of price, so that without change in the money income of the consumer his purchasing power is increased. The same dollar buys more. Since technical improvements are introduced chiefly for the purpose of lowering producers' costs, and since these improvements have been and are increasingly employed, technology should be a major factor in improving standards of living. And because the great bulk of consumers consists of workers and their families, a lowering of price as a consequence of technical productive improvements is regarded as one of the important ways in which the worker derives his share of the benefits of the new technology. Furthermore, labor as a whole benefits from increased employment required to meet the demand for additional goods at lowered prices.

But this theory presupposes that all prices are "market" prices, where the number of buyers and sellers in the market is so great that a decision of any one of them has no significant effect upon price, as is the case generally with agricultural commodities. But for a wide range of commodities it is now well-recognized that these conditions do not obtain, and are such as to permit of "influenced" prices which may retain to the producer or seller some of the gains derived from technology the consumer would otherwise have. Consequently the benefits of technology are not passed on to the consumer or to the worker whose labor has been used more productively with the aid of technical devices or processes.

Rigid or inflexible ("insensitive") prices over a period of time suggest but do not prove the existence of control. In recent years, the possible existence of a relationship between the concentration of economic power and price inflexibility has been frequently examined. For example, a recent study of the National Resources Committee had this to say:

The main conclusion to be reached from this analysis is that, while many factors influence price insensitivity, the dominant factor in making for depression insensitivity of prices is the administrative control over prices which results from the relatively small number of concerns dominating particular markets.¹⁸

The effect of technology on the consumer is not always revealed in terms of price. Producers offer better quality, more elaborate service, more attractive guarantees, more convenient terms of payment, cellophane wrappings, and better radio programs instead of price reductions. Many such items are the consequences of technological advances. But apparently the most important single practical channel for nonprice competition is that involving actual improvement of the physical quality or content of the goods in question. This is illustrated in the improvement of the automobile tire and the mechanical refrigerator, the better operation of farm machinery, the increase of tensile strength of steel, the quality of tex-

¹⁸ The Structure of the American Economy, Part I, 1939, p. 143.

tiles, fabrics, shoe leather, of food in cans, etc. However, the avoidance of price competition and the resultant maintenance of high prices make it impossible for those in the lower income groups to purchase some commodities no matter how excellent their quality.

To ascertain whether or not technological improvements have been translated into price reductions a study was made of the relationship between the behavior of labor productivity and of prices in nine major industries. The industries were separated into two groups, concentrated and nonconcentrated, the principal standard of delineation being the percent of the industry's output produced by its four largest firms.¹⁹

The price indexes in the concentrated industries tend to remain well above their prewar position, while the price series of the nonconcentrated industries closely approach the 1914 level. The unit labor requirement series tends to drop more extensively than price since 1919 in the concentrated industries, while the two series tend to parallel each other in the nonconcentrated industries, with the price series often maintaining a position below the unit labor requirement index for sustained periods. This difference in the type of relationship is graphically apparent in the comparison between the cement and furniture industries (see chart XIII) and also characterizes the other concentrated industries—iron and steel, nonferrous metals, automobiles, cigarettes, electric light and power—as well as the two other nonconcentrated industries, cotton and woolen goods.

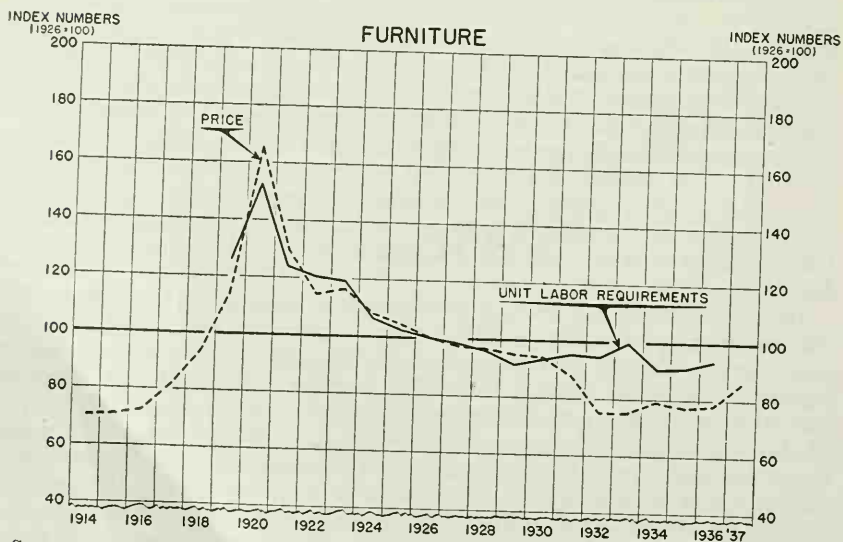
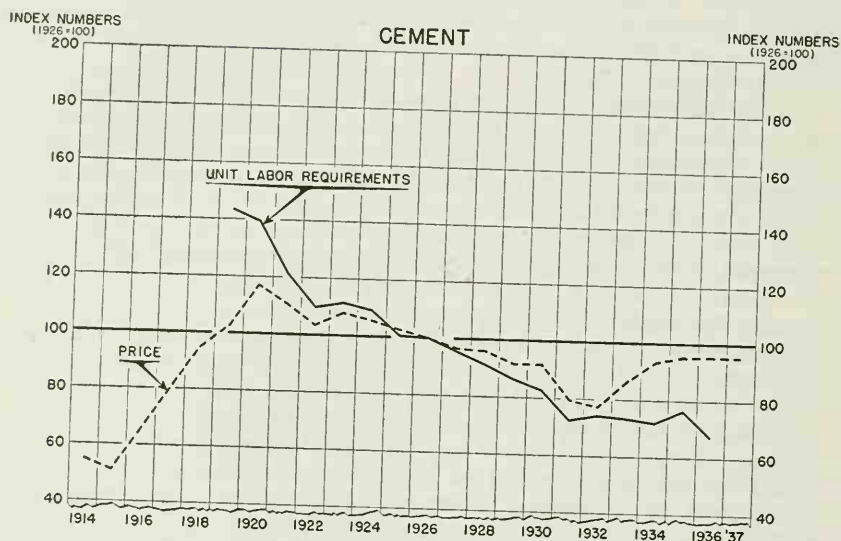
The tendency of unit labor requirements to decline more extensively than price in the concentrated industries naturally varies in degree and in time among them. It was most noticeable in the iron and steel industry during 1919–29 and again during 1933–37. In the nonferrous metals industry, it continued throughout the entire period, except for brief interruptions in 1931–32 and 1934–35. In the motor vehicles industry, the price series declined about as extensively as unit labor requirements from 1921 to 1926. During the periods 1919–21, 1926–30, and 1933–37, however, the tendency was reversed. In the cigarette industry, the general decline in unit labor requirements throughout the entire period was far greater than any decrease in price, except for 1933–34. The overall decline in unit labor requirements in the electric light and power industry was considerably greater than the decrease in price, despite the relatively large expenditures of man-hours during the twenties involved in the installation of new light and power facilities.

In rather sharp contrast, the unit labor requirement index in the nonconcentrated industries seldom declined more extensively than the price series. In the cotton goods industry the two indexes tended to parallel each other during 1920–30. During 1932–37 the price series turned upward from its depression low, but even the material decline of the unit labor requirement index during 1931–36 did not take it much below the position of the price index. The productivity-price relationship in the woolen and worsted goods industry parallels almost exactly that of the cotton goods industry throughout the entire period. In the furniture industry the two indexes moved closely together until 1930, after which the price series fluctuated at a level well below that of the

¹⁹ A detailed analysis of productivity and prices in each industry will be found in Temporary National Economic Committee Monograph No. 22, Appendix H.

CHART XIII

INDEXES OF UNIT LABOR REQUIREMENTS AND PRICES UNITED STATES



SOURCE: Temporary National Economic Committee Monograph No. 22, Appendix H, tables 4 and 11.

unit labor requirement index. In the cement industry, however, the unit labor requirement index fell considerably below the price index after 1930.

Perhaps of greatest pertinence is the divergence of trends between unit labor requirements and prices since 1929. The enlargement of the spread may be attributed to the upturn of prices from the depths of 1932-33 which took place from 1934 to 1937. By 1937 the price series in the concentrated industries (except in the electric light and power industry) had risen to levels only slightly below—and in some cases actually above—the 1929 levels. But the unit labor requirement series turned sharply downward after 1933, following its rise in the worst years of the depression because of curtailment of output, reaching an all-time low by 1936 (except in nonferrous metals).²⁰

It is apparent that lowered production costs made possible by technical advances have not been permitted to express themselves freely in lower prices in important sections of the economy. The consequent disadvantage to the consumer is obvious, and the wage earner has also been deprived of employment opportunities which would have followed increased production of goods at lowered prices. How far-reaching this influence has been it is difficult to say. But more than a hint is found in a monograph of the Temporary National Economic Committee devoted to a survey of competition and monopoly in American industry.²¹ The concluding chapter groups American business activity into two broad divisions. In the one, where competition is said to be "more usual," prices are "relatively flexible"; in the other, where "it is possible monopoly is as usual as competition," prices are "relatively rigid." The first group produces nearly 40 percent of the national income, the second more than 45 percent.

Prices and the Spread of Consumers' Income.

A price reduction of a given amount does not affect equally those with a \$500 a year income and those with a \$5,000 income. Therefore lowered prices are a greater boon to those of smaller incomes insofar as the lowered prices affect items embraced within their customary scales of living. The diversion of productive gains toward the labor fund rather than to capital gains, while not necessarily disturbing income differentials seriously, would raise the purchasing power of wages and salaries and improve consumers' standards of living in general.

TECHNOLOGY AND THE WORKER

The wage earner's interest in technology has been represented as an unequal balance of losses and compensations. Among the losses are (1) his general inability to share in the new productivity in terms of higher real wages; (2) the loss of jobs resulting from the substitution for labor of machines and better organization; (3) displacement from the labor markets for periods of long duration or entirely; (4) obsolescence or cheapening of his skill because of technical instruments and processes which substitute machine-tending for craftsmanship; (5) the emergence of conditions due to technology which affect disadvantageously his physical and mental well-being. Set off

²⁰ Further data supporting these findings are to be found in Spurgeon Bell, *Productivity, Wages, and National Income*, 1940, p. 68.

²¹ Clair Wilcox, *Competition and Monopoly in American Industry*, Temporary National Economic Committee Monograph No. 21, ch. VI.

against these are certain alleged compensations: (1) A gain in leisure because of shortened hours, (2) the emergence of new industries offering reemployment, (3) an increase in real wages, and (4) a reduction in arduous employment.

Productivity and Wages.

The gains derived from technical advances express themselves first in lower cost per unit of output. These gains may be passed on to the consumer in lower prices, as has been noted. But they may be diverted into higher money wages, or into higher real wages if the prices of goods and services in general remain constant. Or they may be diverted into an increased rate of return to the capital invested in the enterprise. They may be, and often are, distributed in all four ways, disproportionately or proportionately, from the viewpoint of a mode of distribution existing at some given time or period.

While increased productivity is to be charged in general to capital investment in improved machines and processes, it is the opinion of some, especially of spokesmen for organized labor, that the wage earner has a proper equity in productivity gains which make use of his labor more profitably, even if at the same time he benefits from lowered prices. This position is also likely to be taken by those who think of the labor fund as the great reservoir of purchasing power and consumption which should not be diminished by an undue diversion of gains in other directions.

The behavior of unit labor costs depends upon two factors: Average hourly earnings and output per man-hour. If the wage cost per hour (average hourly earnings) advances more than the amount of goods produced per hour (output per man-hour), unit labor costs would rise. On the other hand, if the increase in output per man-hour exceeded the rise in average hourly earnings, unit labor costs would fall.

That the advance in hourly earnings did not keep pace with the increase in output per man-hour from 1923 to 1935 in 11 important industries is shown clearly by table 10.

TABLE 10.—Percent change in hourly earnings, output per man-hour, and unit labor cost in 11 manufacturing industries, 1923-35

Industry	Percent change from 1923 to 1935 in—		
	Average hourly earnings	Output per man-hour	Unit labor cost
Iron and steel.....	+9.9	+48.2	-20.0
Chemicals.....	+19.8	+74.2	-29.5
Rubber products.....	+28.0	+79.6	-32.2
Paper and pulp.....	+5.8	+46.5	-30.0
Paints and varnishes.....	+7.7	+31.7	-15.5
Boots and shoes.....	+15.2	+54.1	-38.8
Leather.....	+14.2	+38.9	-20.6
Cotton goods.....	+7	+28.5	-22.4
Woolen and worsted goods.....	+2.2	+43.7	-26.3
Knit goods.....	+36.1	+66.2	-21.9
Newspapers and periodicals.....	+24.4	+45.8	-20.1

Source: Hourly Earnings, National Industrial Conference Board, *Wages, Hours, and Employment in the United States, 1914-36*; Output per Man-Hour, National Research Project, *Production, Employment, and Productivity in 59 Manufacturing Industries, 1919-36*, pt. II; Unit Labor Cost, U. S. Bureau of Labor Statistics, *Monthly Labor Review*, December 1939, "Employment and Production in Manufacturing industries, 1919 to 1936," p. 1404.

In each of the industries the increase in output per man-hour was far greater than the advance in hourly earnings. Consequently, unit labor costs in each were materially lower in the latter than in the former year. Interestingly enough, those industries in which average hourly earnings advanced most noticeably—knit goods (36.1 percent), rubber products (28 percent), newspapers and periodicals (24.4 percent)—were characterized by some of the most extensive increases in output per man-hour (66.2, 79.6, and 45.8 percent, respectively). Regardless of whether increased hourly earnings made it necessary for producers to increase greatly the productivity of the labor force, or whether the increase in output per man-hour made it possible for producers to pay higher hourly wages, the important fact is that unit labor costs did decline.

This decrease was less than 20 percent in only 1 of the 11 industries—paints and varnishes. It should be noted that this comparison stops short of very recent years in which advances in hourly earnings took place caused by such legislation as the National Industrial Recovery Act, the Fair Labor Standards Act, and the National Labor Relations Act, together with the marked growth in union organization.

A comparison of changes in hourly earnings, output per man-hour, and unit labor costs in the short but dynamic period of 1935-39 can be made for 13 diversified industries (table 11).

TABLE 11.—*Percent change in hourly earnings, output per man-hour, and unit labor cost in 13 manufacturing industries, 1935-39*

Industry	Percent change from 1935 to 1939 in—		
	Average hourly earnings	Output per man-hour	Unit labor cost
Iron and steel	+27.0	+27.5	-0.4
Petroleum refining	+21.6	+26.0	-3.5
Chemicals	+23.1	+11.5	+10.4
Paints and varnishes	+20.1	+10.5	+8.8
Rayon	+25.7	+58.1	-20.5
Cement	+22.2	+25.2	-2.4
Cotton goods	+3.5	+20.9	-14.4
Boots and shoes	-1.8	+6.9	-8.1
Paper and pulp	+17.2	+17.3	-.1
Newspapers and periodicals	+12.6	+3.9	+8.4
Bread and other bakery products	+16.3	+13.9	+2.1
Flour	+10.4	+7.2	+3.0
Cane-sugar refining	+12.0	-3.8	+16.4

Source: U. S. Bureau of Labor Statistics, Monthly Labor Review, July 1940, p. 36.

During this short span of years the marked increases in hourly earnings were generally matched or even exceeded by increases in output per man-hour. In five of the industries the increase in hourly earnings was greater than in output per man-hour, but in one of these units labor costs nevertheless declined 8.8 percent. In the rest (except cane-sugar refining) the advance in output per man-hour exceeded the increase in hourly earnings. In four of the six industries with wage increases exceeding 20 percent still greater increases in output per man-hour were achieved and lower unit labor costs resulted.

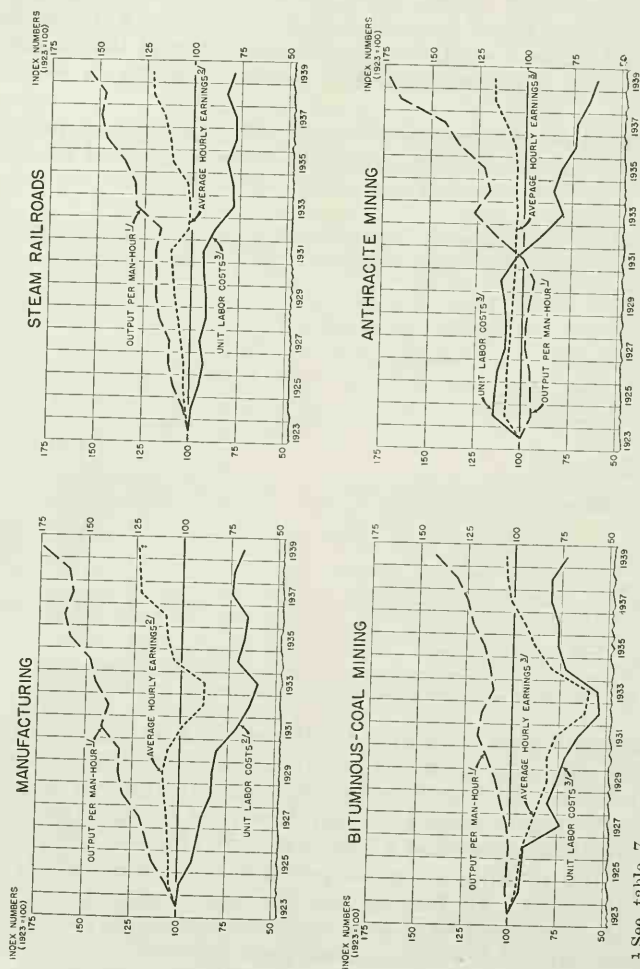
Despite substantial advances in hourly earnings during the latter part of the thirties, labor productivity increased to such an extent that

unit labor costs in 1939 were at an all-time low in anthracite mining and were almost down to the previous all-time low in steam railroads. (See chart XIV.) In manufacturing, unit labor costs dropped in 1939 to a level below which only the depression lows of 1932-35 and 1935-36 fell, when hourly earnings were also less than in 1939.

The increase in average hourly earnings during the latter part of the thirties represented in each case a striking departure from the long-term trend. As is well known, a combination of factors, including the enactment of labor legislation validated by the Supreme Court, were largely responsible for this sudden upturn in wages. Since it is unlikely that this combination of factors will recur in the near future, a leveling off in the rate of increase in hourly earnings may be expected. No such behavior in the rate of increase in labor productivity is anywhere indicated; on the contrary, even more rapid advances in output per man-hour are possible.

INDEXES OF OUTPUT PER MAN-HOUR, AVERAGE HOURLY EARNINGS AND UNIT LABOR COST

UNITED STATES, 1923-1939



¹ See table 7.

² U. S. Bureau of Labor Statistics, Monthly Labor Review, "Wages, Hours, and Productivity of Industrial Labor, 1909 to 1939," September 1940.

³ Compiled by Wirt Bowden from data supplied by Interstate Commerce Commission, U. S. Bureau of Labor Statistics, and U. S. Bureau of the Census.

The possible widening of the spread between labor productivity and hourly earnings obviously means even greater decline in unit labor costs. If prices remain constant—and in a large segment of the economy they have been markedly stable—this decline in unit labor costs will further reduce labor's share of the value of products.

In agriculture, a comparison of trend lines based upon index figures for payments to farm workers and hired hands and for the total income produced, during the period 1919–38, shows a close correspondence throughout. These facts lead to the conclusion that the dollars received by farmers have gone directly to those gainfully employed on the farm. They have not gone to interest and dividends.²² This is not to say, however, that productivity gains have been retained by the farmers. Most of these undoubtedly were absorbed by the lowering of prices of agricultural products.

A generalization for the entire economy is not possible, but a fair inference is that, for the period 1919–39, in a substantial portion of it, gains in productivity have not been paralleled by gains in workers' earnings. This long-run trend was somewhat modified in the late thirties by legislation effecting an improvement in wages, but this may be outweighed in the future by advances in output per man-hour.

It has been amply demonstrated that the labor fund must be greatly enlarged if it is to absorb the production now made possible by applications of the new technology.²³ This requires a much more positive sharing of productive gains by labor than seems to have obtained recently. Existing conditions in many segments of the economy do not promise this outcome for the immediate or even the more remote future. The contribution of technology to the interests of labor in this connection therefore leaves much to be desired.

Amount of Unemployment.

One of the effects of the adoption of new technical facilities is to reduce the time required to produce a given quantity of goods. Unless demand for goods increases proportionately, it is plain that less labor will be required and unemployment will follow. Unemployment may thus result from the use of technology or from lessened demand, or from both. The two things are so closely interrelated that it is most difficult to separate the effect of technology upon unemployment taken by itself, or to measure this effect. The disturbed conditions of the years of depression and recovery add to the difficulty.

Dr. Frederick Mills studied the relation of productivity to production and employment in manufacturing extending from the period prior to 1919 down to the year 1935, finding: (1) There was a steady increase in the proportion of the population of the United States engaged in manufacturing industries prior to 1919. From 1899 to 1919, though productivity increased greatly, the total number of employees more than doubled, average normal hours decreased from 59 to 52 a week, but the total employment in man-hours per week increased 70 percent. In short, the gainfully occupied population in manufacturing, its productivity, number of employees, and man-hour employment increased concurrently with a decrease in working hours

²² See Temporary National Economic Committee Monograph No. 7, p. 50 ff.

²³ See the testimony of Dr. Isador Lubin, hearings before the Temporary National Economic Committee, Part I, pp. 74–80.

per week. These are presumably the symptoms of a "normally" expanding industrial economy.

(2) There was an increase of 16 percent in the general population, a notable expansion of manufacturing production, a drop in the total number of employees, as well as in the total of man-hour employment from 1919 to 1929. In considerable part this was due to technological changes. However, the circumstances varied with the nature of the industries. Between 1923 and 1929, in general, expansions in output served to offset advancing productivity. Displacements of workers were accommodated by reentrance within manufacturing as a whole, while the new labor entering the market by reason of population growth was absorbed by nonmanufacturing segments of the economy.

(3) From 1929 to 1935 the number of salaried employees was reduced by 21 percent, the number of wage earners by 16 percent. In absolute numbers wage earners decreased 1,460,000, while the total of man-hour employment declined 36 percent. This decline in employment was due in part to the failure of manufacturing production to regain its pre-depression level, in part to an advance in industrial productivity requiring a smaller working force. Of the actual employment decline in man-hours in manufacturing industries between 1929 and 1935, slightly less than half may apparently be charged to changes in productivity; the remainder was seemingly the consequence of declining production. Reduced industrial activity, and the complex market conditions that underly this reduction were in a casual sense more important than increased man-hour productivity.

Had there been no changes in weekly hours, the 1929 output in manufacturing could have been produced in 1939 with 2,036,770 fewer wage earners, a 24.5 percent reduction in a decade. The 1930 output could have been produced in 1937 with 295,550 less wage earners in steam railroads, and 40,538 fewer in bituminous coal mining;²⁴ reductions of 20.2 percent and 9.7 percent, respectively, within only 7 years.

The seriousness of a technological displacement of over 2,000,000 adjusted man-years in manufacturing during one decade, of nearly 300,000 man-years in steam railroads, and of over 40,000 in bituminous coal mining in only 7 years requires no elaboration.

The Duration of Unemployment.

A considerable proportion of those without work remain jobless for extended periods of time. During recent years, studies of duration of unemployment have been made by the National Research Project of the Work Projects Administration. In Philadelphia an analysis of the duration of unemployment was made in May 1937, a month of considerable industrial activity. This canvass of 46,000 households, included about 9 percent of the estimated employable population of the city.

Philadelphia is a center of industrial activity. "In 1930 about half of the gainful workers in the city were attached to the manufacturing and mechanical industries, in which various types of metal and machinery manufacturing, textile manufacturing, and building construc-

²⁴ This displacement does not include the amount of labor lost in bituminous coal from production decreases due to the substitution of other fuels.

tion predominated. One-fifth of the gainful workers in 1930 were employed in trade, and the remainder in other types of industries."²⁵

The duration of unemployment in this study was defined as "the length of time from the date of the loss of the last nonrelief job which lasted 1 month or more to June 1, 1937." Employment on Emergency Works Program Projects was counted as unemployment. For the majority of workers the duration of unemployment represented the length of time they had been seeking work since the loss of their last job, but for an undetermined number it may have included some periods of time out of the labor market.

The duration of unemployment for both men and women in Philadelphia, as of May 1937, is summarized in the following table:

*Duration of unemployment since last nonrelief job, Philadelphia, May 1937—
All unemployed*

Duration of unemployment in months, total	Cumulative per- centages		Duration of unemployment in months, total	Cumulative per- centages	
	Men	Women		Men	Women
0 to 11	100.0	100.0	36 to 47	37.7	26.1
12 to 23	61.7	48.8	48 to 59	29.4	19.6
24 to 35	48.0	34.9	60 and over	21.6	14.2

Source: Works Progress Administration, National Research Project, Employment and Unemployment in Philadelphia in 1936 and 1937, Part II, May 1937, 1938, p. 26.

Long-term unemployment characterizes a substantial proportion of the jobless in this labor market. Forty-eight percent of the men and 34.9 percent of the women had been without private jobs (which lasted more than 1 month) for 2 years or over; 29.4 percent of the men and 19.6 percent of the women had been unable to obtain jobs for 4 years or more. The large proportion of women engaged in the textile and clothing industries, which were not so seriously affected as other industries by curtailment of production, probably accounts for their being less seriously affected than men.

The Federal Reserve Board reported that industrial production, adjusted for seasonal variation, had risen to 118 by May 1937, compared with 122 for the corresponding month in 1929. Hence that period was by no means one of unusually depressed conditions. Yet a fourth of the persons in this labor market in May 1937 were totally unemployed. The seriousness of the duration of unemployment is even more acute in particular fields of work. For example, men customarily employed in the manufacture of transportation equipment had been out of work in May 1937 for an average of 40.2 months; those usually employed in the manufacture of metal products for 39.3 months. An average of 34.3 months of unemployment was reported by men normally working for public utilities, and 31.5 months by men in the building and construction field.

The role of technology in long-term unemployment cannot be precisely determined, but it is undoubtedly great. In the industries in which technological advances have been greatest there are large numbers of unemployed who have remained jobless for long periods. For

²⁵ Works Progress Administration, National Research Project, Recent Trends in Employment and Unemployment in Philadelphia, 1937, Part II, p. 3.

example, "The highest average duration of unemployment for women was reported by those usually employed in public utilities (40 months), especially in telephone and telegraph companies." ²⁶

Technology and the Displacement of Skill.

Technology not only reduces the amount of labor required to perform a given function; it also brings about changes to the type of labor required, which often involve a displacement of skill. This displacement is limited by the amount of skilled workmanship in modern industries. In the words of Harry Jerome:

The potential displacement of skilled labor by the further substitution of machine methods for hand processing is limited by the fact that, while there are still many hand workers in industry, the number engaged in hand crafts that are of a distinctly skilled type is relatively small, especially if we exclude the building industries. * * *

Numerous examples of skill displacement are available. The replacement of skilled stonecutters by mechanical stoneplaners may be roughly estimated. "In 1900 there were between 20,000 and 25,000 stonecutters in the United States. By 1915 probably one-half of the stonecutters had been displaced from the trade." ²⁸ An improved wood shaper now turns out special shapes of ironing boards. The operator simply stacks a number of boards, which are cut and shaped at one time by the machine; he then removes the cut boards and inserts others. Formerly a moderately skilled worker manipulated a single ironing board around the cutting tool until the edges were smooth and even.

Highly skilled wood carvers in the furniture industry have been displaced to a considerable extent by woodcarving machines, which can produce up to 24 identical carvings from a master form. Replacing the skilled carver is a semiskilled operator who is generally incapable of carving with hand tools. Only a few of the craftsmen are retained—and these only in the large furniture factories—to make the original master forms. Craftsmanship is also disappearing in the pottery industry. The potter's wheel is rarely used. Instead, a plaster-of-paris mold is filled with fluid clay, and later a comparatively unskilled worker breaks open the mold to discharge the ware.

Industrial instruments exemplify the general-purpose type of skill-displacement techniques. Their application has been steadily extended into a larger number of fields. The skill-displacing potentialities of instruments which control are much greater than those which merely indicate or record. Of all the new instruments placed on the market during the period 1928-37 the number of the controlling type rose most sharply. In 1928 only 8 percent of the new instruments were control devices; by 1935 their proportion had risen to 40 percent. The proportion of recording instruments declined during this period from 15 to 11 percent and indicators fell from 78 to 49 percent.

The widespread application of industrial instruments has resulted in a marked change in the composition of the labor force in numerous industrial operations, since the need for skilled labor is reduced when instruments simplify and standardize the method of work.

²⁶ Ibid., p. 28. The widespread extent of this long-term unemployment is corroborated by the Census of Unemployment in Massachusetts, taken in 1934.

²⁷ Mechanization in Industry, National Bureau of Economic Research, New York, 1934, p. 397.

²⁸ George E. Barnett, *Machinery and Labor*, Harvard University Press, Cambridge, 1926, p. 34.

In recent years changes of almost revolutionary character have affected certain basic stages of metal work. The most striking are stamping and welding. When metals were formed into shape with planers, lathes, broachers, shapers, and files the skill requirements per unit of output were among the highest in the industrial world. But today, the role of many metal workers is becoming increasingly that of an attendant to a machine which batters and hammers the metal into form with tremendous force and extreme precision at an almost incredible speed. This machine is the punch press. The punch press and closely related types of equipment are today capable of trimming, shearing, parting, notching, blanking, punching, piercing, bending, beading, expanding, curling, contracting, burring, wiring, drawing, extruding, forging (hot and cold), swaging, flanging, embossing, and pinching. The speed of the punch press has been steadily increased. The amount of skill per unit of output has been decreased not only by the speed of these modern battering rams; their very development has completely eliminated certain functions formerly performed by skilled workers.

Not many years ago the electric arc and the acetylene torch were regarded merely as tools for repair. The riveter, formerly a highly skilled worker in the steel trades, has been practically displaced by the development of the resistance welder and the spot welder. The science of welding has been so developed that the worker only needs to know how to make good welds. A lengthy experience with the process and an intimate knowledge of metals are no longer requisites of the occupation.

The skill-displacement caused by the punch-press and the spot-welding process is reflected in the occupational requirements of an industry in which they are widely used. It has been reported that in the plants of one large automobile company, 43 percent of the workers require only 1 day to learn their jobs, 36 percent up to 8 days, 6 percent up to 2 weeks, 14 percent from a month to a year, and only 1 percent more than a year.

All new techniques, however, do not result in a reduction or elimination of skill requirements. In certain cases, new techniques cause the replacement of a large number of semi- or unskilled workers by a few highly skilled operators. The tendency toward the creation of new skills is important, but even though a new skill is created by a new technique, unit labor requirements in the process as a whole are generally reduced. Furthermore, producers sooner or later develop new mechanisms which eliminate the new skill or standardize its operation, so that the function can be performed by a semi- or unskilled worker.

Reduced occupational training requirements.—Perhaps the best method of ascertaining changes in skill requirements is to compare the amount of time required for training at different periods. The method rests upon the reasonable assumption that under normal conditions a decrease in the length of the training period generally indicates a decrease in the amount of skill required.

The changes in the length of the training periods required for all production workers in 1931 and 1936 in five diversified industries—metal working, baking (hand-operated), creamery, printing (en-

graving), and laundry—were studied in Minnesota.²⁹ The tendency in each of the industries, whether highly mechanized or hand-operated, was definitely toward a shorter training period for a greater proportion of workers.

In metal-working only 4 percent of the production workers in 1931 required a training period of less than half a month; by 1936 that proportion had risen to 20 percent. On the other hand, the proportion of workers which required from 2 to 4 years of training fell from 42 percent of the total in 1931 to only 7 percent in 1936. This was due to the use of jigs, fixtures, and other devices which reduced the degree of skill and, therefore, the amount of training required for many jobs.

The same tendency was apparent in a less mechanized industry—hand-operated bakeries. The proportion of workers requiring less than one-half month's training rose from 8 to 45 percent in the same period, while the proportion requiring 2 to 4 years' training fell from 32 to 5 percent. This curtailment of the training period is due largely to the further division of labor and to more efficient management. In some hand-operated bakeries, where formerly one baker had made a complete product, a type of assembly line, with each worker performing one simple operation was introduced. This is a striking illustration of the use of chain work to save labor.

While certain skilled workers will always be required to set designs, etc., they are giving way in the labor force to workers of lower skill. But the number of completely unskilled workers also appears to be declining. One of the most spectacular changes between 1931 and 1936 noted by this study was the decline in the proportion which completely unskilled workers were of the total number of production workers. In 1931 virtually all the industries covered had some production workers so classified; in 1936 the proportion had dropped in the majority of industries surveyed, and in several plants this type of job had disappeared altogether.

The ease with which techniques of production can be devised to replace unskilled workers, and the importance from the cost standpoint of developing techniques to replace the most-skilled workers, combine to reduce the proportion of most-skilled and least-skilled workers with a corresponding gain in the semi-skilled.

A collection of isolated cases is hardly to be regarded as a dependable indication of a general trend. The instances reported above of displacement of skill and the examples shown of lowered training requirements do, however, support common observation in suggesting the probability of a net movement of workers toward the semi-skilled grades of labor.

The Worker's Mental and Physical Well-being.

The interest of the wage earner in modern technology is not confined to its effects upon his employment and skill, his wage share in the value of increased productivity, and lower prices. His well-being is also involved and in some cases he has been subjected to physical and mental strain, industrial accidents, and occupational diseases.

Nervous and mental strain.—Where technology has so transformed productive processes that the individual worker merely attends a semi-

²⁹ Work Projects Administration, National Research Project, Changes in Machinery and Job Requirements in Minnesota Manufacturing, 1931-36.

automatic machine, monotony and boredom are inevitable, and the worker who prefers the monotonous routine imposed by numerous technological processes is generally of relatively low intelligence.

In recent years technology has perhaps tended to lessen the amount of highly repetitious, standardized work, but in so doing it has entirely displaced the individual worker with completely automatic processes or multipurpose machines which perform the necessary functions. For example, Morse telegraphers have become unnecessary where the Morse key has been displaced by the teletype machine.

Monotony, in addition to stunting personality development and stifling imagination, contributes to the occurrence of industrial accidents. Monotony also may lead to actual decreases in worker productivity. Discontent often leads to a deliberate slowing-down of work in all types of employment.

Machinery over whose speed and rhythm the worker has no control is liable to produce strain and tension accompanied by sullen acquiescence or even resentment. Machine-feeding of a more or less automatic kind is, therefore, likely to involve human costs which are seldom fully evaluated, but which contribute to industrial inefficiency. Among them are the definite costs of unrest, absence, ill health, accidents, etc. The British Medical Research Council discovered that when machinery was operated at an abnormal rate of speed, output per worker, after rising in the early part of the spell, began to fall at an extremely rapid rate until the work ceased.

The terms "speed-up" and "stretch-out" have been applied to practically every type of labor intensification. The former indicates an increase in the rapidity with which a worker must perform a given set of functions, while the latter connotes an increase in the number of functions a worker must perform within a given period of time. Labor-intensification systems have been widely applied throughout the industrial world. There is, for example, the speed-up inherent in the application of the straight-line system of production in lieu of the bundle system in the manufacture of cotton garments. The straight-line system makes the operator keenly aware that if she falls behind in her work the operator next in line is rendered idle, waiting for the garment on which she is working. Unless each operation is completed promptly, the rest of the line will be delayed and the foreman will arrive to investigate the trouble.

The speed-up system may derive its tempo either from the interspersing of the more efficient workers throughout the labor force or from the operation of machinery at a speed higher than the usual rate of the average worker. The latter method is particularly applicable to those machine-feeding processes in which the operator's failure to keep the machine fully supplied with material does not injure the machine or the product. In such cases the machine has often been set at a speed which equals or exceeds the highest rate attainable by the best operator, since it is believed that this increases output.

The fear of unemployment resulting from the introduction of speed-up and stretch-out systems leads to discontent and, in some cases, to strikes. For example, the application of the stretch-out system in a cotton mill increased the number of automatic looms attended by an individual weaver from 35 to as many as 100 and made possible a reduction in labor costs by the use of less skilled, lower-paid workers.

Even though the workers, through a fully recognized and long-established trade union, were given the right to cooperate with management in determining conditions under which the stretch-out system was to be applied, the attendant labor displacement became an increasingly acute source of dissatisfaction, leading finally to a bitter and protracted strike.

Systems of intensified labor—all designed to place the amount to be paid on a unit of production basis—have aggravated nervous strain, monotony, and fatigue, and decreased productivity. In some cases these systems have increased industrial accidents.

Industrial accidents.—While industrial accidents, largely as a result of continuing efforts on the part of various governmental agencies, have tended to decline over a long-term period, their incidence is still sufficiently high to make them a major characteristic of modern technology. In 1937, a year of moderately intense activity, a total of 1,838,000 industrial injuries occurred throughout the United States representing 40,159 injuries per 1,000,000 workers.

Occupational diseases.—Certain technological processes contain the danger, if not the certainty, of occupational disease. In 1933 the United States Bureau of Labor Statistics listed approximately 900 hazardous occupations, and during the period 1922 to 1933 the number of poisonous substances considered increased from 52 to 94.

The following classification, prepared by Dr. Carroll Daugherty, indicates the scope of occupational groupings in which occupational diseases are a definite hazard:

- (1) The dusty trades.
- (2) The poisonous trades, other than dusty.
- (3) Occupations producing germ diseases.
- (4) Occupations producing skin infections.
- (5) Occupations involving extremes in temperature.
- (6) Occupations involving work in compressed or rarefied atmospheres.
- (7) Improper lighting.
- (8) Occupations requiring constant use of certain parts of the body.
- (9) Processes requiring artificial humidity.³⁰

The older worker.—It is widely believed that older workers are unable to keep up with the pace of modern technology. But the belief that older workers are less efficient under modern methods of production is without factual foundation. Productivity of older workers has been found to be higher than the average for all age groups generally in skilled crafts, and frequently in mass-production industries.³¹

Apparently the driving tempo of modern mass-production fails to lessen the effectiveness of older workers. They also hold their own in trades requiring skilled craftsmanship. For example, a study of productivity of skilled cigar-makers found that the number of cigars per 40-hour week rolled by workers in the 41 to 50-year-old wage-earner group was 3,090, compared with an average for all age groups of 3,030; 542 of the 1,909 workers included in the sample were in the 41-50 age group. If there are obstacles to the employment of older workers, their existence appears to be due to factors other than technology.

³⁰ Carroll Daugherty, *Labor Problems in American Industry*, Houghton Mifflin, Boston, 1933, pp. 126-127.

³¹ For more detailed discussion, see Beulah Amidon, *Jobs After Forty*, Public Affairs Committee, Inc., New York, 1939, pp. 19-20.

COMPENSATIONS

The effects of technology upon the worker's wage, employment, skill, physical and mental well-being indicate that he has suffered substantial losses from the technical advances of recent decades. Are there compensations that can be set off against these losses to balance the account? Two matters have been stressed in this connection—the reduction of hours of work and the emergence of new industries which offer the worker new opportunities in place of those which have been lost or circumscribed.

Reduction of Hours.

Reduction of hours per week in recent decades has been an undoubted gain to labor in terms of increased leisure, if this has not been more than counter-balanced by a loss of employment or of real income. A complete audit in this account cannot be written in terms of the circumstances of employed labor alone. The interests of the entire gainfully occupied population must be considered, not to mention the requirements of the consuming public which needs a greater rather than a smaller output of goods and services. Considering the interests of the entire body of workers, hours of work have to be compared with associated trends in employment, in the amount and distribution of wages, and with possible long-run cultural gains to be realized in the use of the new leisure.

Hours of work have declined extensively during the last century. In 1851 a union of newspaper compositors in New York City recommended a work week of six 12-hour days, or 72 hours. By 1938 compositors worked 37½ hours a week. Blast furnace employees worked a full-time week of 84 hours as late as 1900; today their hours are down to 40.

From 1890–1937 the average work week of factory employees in the United States fell from about 60 to 42 hours; in the building trades from 55 to 39; in steam railroads from 60 to 48; in anthracite and bituminous coal mining from 60 to 35. This decline in hours has been punctuated by two precipitous dips followed by periods of relative stability. The first abrupt downturn took place during the World War when the average full-time work week fell from 55.1 to 51.0 hours. This was due largely to shortages in labor and the competition for workers among industries. The number of hours worked per week then remained relatively stable throughout the 1920's.

The second abrupt dip occurred under the National Industrial Recovery Act when the 40-hour week was commonly established by the codes of fair competition, while in certain industries, principally clothing and coal mining, hours were reduced to 35 or 36 per week. For the majority of workers the 40-hour week meant a reduction of 8 to 10 hours a week.

In most cases the decreases brought about by the N. I. R. A. have remained in effect due in large part to the increasing organization of labor and the enactment of labor legislation which has been held constitutional by the United States Supreme Court.

The Fair Labor Standards Act, which became effective October 24, 1938, limits the hours of persons employed in interstate commerce or in the production of goods for interstate commerce (with specified exceptions) to 44 per week during the year beginning October 1938, 42 the

second year, and 40 hours thereafter. All time in excess of these hours is considered overtime and must be paid for at one and one-half times the regular rate of pay. The law exempts persons working under collective agreements, certified as bona fide by the National Labor Relations Board, with the provision that such agreements either limit hours to 1,000 in a period of 26 weeks or to not more than 2,000 during any period of 52 consecutive weeks. The law also makes certain exemptions for seasonal industries and specific occupations such as agriculture, the merchant marine and other employments in which working conditions are specially regulated by Federal legislation.

Federal legislation also limits all workers employed in establishments working on Government contracts exceeding \$10,000 in value to an 8-hour day and a 40-hour week, and workers employed on projects under the Work Projects Administration and the Tennessee Valley Authority to 8 hours per day, 40 per week, and 140 per month.

Viewed as a whole, Federal legislation is operating to stabilize the work week at the 40-hour level (or at 39 hours in the case of Federal employees). Since most collective agreements provide for a 40-hour work week, labor organizations will probably not press for further hourly reductions so strenuously as they did when hours of work were onerously long. Furthermore, it is extremely doubtful whether public sympathy could be aroused so readily in favor of reducing the 40-hour week to 30 or 25 hours, as in 1923 when it provoked conferences between President Harding and leaders of the steel industry leading to the abandonment of the 72-hour work week.

The reduction of hours of labor from about 60 a week to around 40 has been achieved during a period of industrial expansion along with a notable increase in productivity and a growing per capita production. The depression introduced complications, for since 1929 shorter hours have been valued less for their own sake than for their effect on the spreading of work in a period of lowered production and much unemployment. Thus the benefits of reduced hours to the employed group of workers during the depression have probably been more than offset by loss of income and by an excess of leisure with those who were forced into partial or complete unemployment. But the long-run view is clearly the appropriate one in this connection. Presupposing full recovery and full employment, the attainment of a suitable work period may mean further reduction of hours of work which would be a permanent gain of the highest importance.

The population now relieved from excessive hours of labor is the very population which historically has been deprived of access to the better cultural heritage, whose families have not had traditions of a superior sort to transmit to children who as adults have obviously suffered from this deprivation.

Development of New Industries.

The development of new industries causes the economy to expand along three major fronts. (1) Employment opportunities are created for large segments of the working population in the fabrication of the new product; (2) the capital goods industries are stimulated by the placement of orders for needed productive equipment; (3) new industries frequently create activities in the fields of distribution, transportation, service, and maintenance.

The importance of new industries is emphasized by the fact that 18 manufacturing industries which came into existence since 1879 ab-

sorbed almost one-seventh of all the labor employed in manufacturing in 1929. The number employed by these industries does not include either those engaged in the production of the necessary capital goods or those required in the fields of distribution, transportation, and service.

While new industries are rapidly expanding they are most effective as stimulants to economic activity. New plants are constructed, new workers are hired, and a new demand is created for materials. The importance of a new industry diminishes, however, as it develops sufficient capacity to meet a foreseeable demand, and as the capital goods industries supplying the necessary productive equipment expand to a point where they can meet any expected demand from the new industries. Certain new industries tend to pass quickly through this vital growing stage, such as those which produce durable goods and are affected by a rapid increase in market saturation.

The mere development of a new product, or perhaps a new industry, does not necessarily result in a net gain in employment and purchasing power equivalent to the consumption of the new product. The new good may be merely a substitute for other commodities. The importance of a new good for an increase in employment and purchasing power depends greatly upon the intensity of its appeal to all classes of consumers. The greater utility of motor transportation over that of the horse-drawn vehicle and the railroad in the movement of industrial goods is only a part of its general usefulness. The attractiveness of the automobile to families for its prestige value, for greater general convenience, and particularly for its recreational values is so great as to minimize the importance of numerous other goods and services. In order to possess one, economies are required in many items of the family budget. Its purchase draws heavily upon savings and upon future income in the shape of partial payments, which in themselves prohibit in advance many customary expenditures.

While more units of the new product may be sold than of the old, as in the substitution of the automobile for the horse-drawn vehicle, this gain might be offset by lower unit labor requirements in the production of the new commodity. Its net advantage to employment and purchasing power would require an exact comparison of the production and unit labor requirements of the new industry with those of the whole range of commodities whose consumption was diminished by the substitution of the new product, a comparison which seems quite impossible to make.

Finally, to summarize the importance of the "new industries stimulus" to enterprise and prosperity,

We should be careful * * * not to over-weight this new-industry argument. In any period of prosperity the great bulk of capital formation occurs in industries that have been long established. * * * That the bulk of such expansion during the decade (of the twenties) occurred in industries either old or middle-aged seems unquestionable. We have only to consider the tremendous expansion outlays in housing, railroads, telephones, electric power, commercial construction, and the like, to confirm the conclusion. * * * As a matter of fact, the more mature and elaborate a technology becomes, the more likely it is that expansion will occur through thousands of individually minor advances, rather than through a few inventions of a fundamental and revolutionary character.²²

²² Savings and Investment in the American Enterprise System, Machinery and Allied Products Institute, July 1939, pp. 22, 23, 26.

A significant compensation to the worker's loss of employment opportunities is not found and is probably not to be expected from either new industries or the expansion of old ones as such. There are dynamic forces lying below the surface in this connection which need to be recognized and controlled. Most important of these in the opinion of many are (1) the expansion of the labor fund and of purchasing power, and (2) the removal of restraints which account for the existence of controlled prices—together with such associated alterations in the economy as these basic changes make necessary.

The existing pattern of income distribution is another limitation upon the stimulating effect of new industries. Because over two-thirds of the Nation's families and individuals are in the lower-income groups, the market for new products is automatically limited. About one-third (31.6 percent) of the total number of families and single individuals received incomes of less than \$750 in 1935-36, nearly one-half (46.5 percent) less than \$1,000, and over two-thirds (68.6 percent) less than \$1,500. At the other end of the income scale, about 2 percent had incomes of \$5,000 and over, and less than 1 percent incomes of \$10,000 and over.

The overwhelming number of persons included in the lower-income groups indicates that a mass market for any new product must be created principally among them. But the development of such a mass market depends upon making it possible for the poorer families to purchase more than the primary necessities of life. Thus, the potential market for new commodities, outside the field of primary necessities, should be measured in terms of the consuming units' income residual (income remaining after expenditures for food, clothing, shelter, and personal care). The Bureau of Labor Statistics has computed this income residual and has represented it as a percentage of total income for nonrelief families in cities of varying size throughout the United States. The income residual of the members of lower-income groups is extremely limited. Over two-thirds of all consuming units receive less than \$1,500 annually, and their income residual generally amounts to less than 20 percent of their total income. In many cases, families in the lowest income brackets (under \$750) actually spend more than their total incomes (a practice made possible in the case of nonrelief families by the use of credit or past savings).

If a family receiving \$1,500 a year has an income residual of only 20 percent, or \$300, this constitutes its buying power for products other than absolute necessities. A new product, which is a nonnecessity, must compete for a share of this \$300 with items of transportation, personal care, medical care, recreation, tobacco, drugs and cosmetics, and taxes. If the new product competes with an old product within any of these fields, the substitution involved may well reduce sharply the stimulus of the new industry.

The Bureau of Labor Statistics examined the market for certain household equipment in relation to the size of the income residual and concluded that, due to the smallness of the income residual among the lower-income groups,

The opportunities of purchasing such products as refrigerators, vacuum cleaners, or washing-machines are correspondingly limited. This does not mean that the lower-income groups must be dropped from consideration as a potential market

for these goods. * * * Obviously, if these markets are to be tapped, prices must be low and payments must be extended over substantial periods of time.³³

The smallness of the income residual among the lower-income groups will not necessarily prevent the development of any new industry, but the present pattern of income distribution must be regarded as an obstacle to the extensive development of any new industry.

TECHNOLOGY, INVESTORS, AND ENTERPRISE

Presupposing insatiability of wants on the part of the consuming public, the necessary purchasing power, and the continuing emergence of new technical ideas, it would follow that an expanding economy would ever call for new capital and so provide continuing opportunity for investment. From the viewpoint of the investing public, technology may have created obstructions to its continuing advantage, or it may have created positive gains. Here as elsewhere a balance must be struck between the disadvantages and benefits of technology. But in the misuse of patents and the control of research by large business groups technology is contributing to the increased unbalance of the economy.

Misuse of Patents.

Patents have been used in a wide variety of ways to establish a high degree of economic power over an industry. But the power exerted is frequently far greater than might be inferred from the existence of a 17-year legal monopoly.

There are two principal reasons for this: (1) control may be extended well beyond the termination of the basic patent by means of so-called improvement or indirect patents. The operation of the basic equipment without these patented improvements is often impracticable and thus control may be extended an additional number of years for each patent improvement. (2) The life of a patent affords the company controlling it a considerable amount of time in which to become entrenched in a position of dominant economic power. During this period its monopoly income may enable it to engage in activities to secure the field to itself after the patent control is legally ended. The company may purchase potential rivals outright or buy their patents; it may contract for the services of the leading inventive talent in the field; it may bring expensive lawsuits upon so-called infringers, the expense of which, in most instances, can be borne much more readily by the established firm than by the accused companies; it may pursue policies of predatory price cutting, designed to force out of business those firms with less financial staying-power. In short, it may accumulate during the period of its patent control such financial strength that it can vigorously pursue any of the numerous policies designed to control the extent of competitors' operations, or to force competitors completely out of business.

A partial list of the techniques for effecting economic control through patents includes the use of patents to establish command over the production of a given commodity (1) by compelling members of an industry to lease patented equipment; (2) by dividing territory and

³³ See Temporary National Economic Committee Monograph No. 1, Price Behavior and Business Policy, p. 131.

allocating geographic markets among several producers; (3) by determining the type and amount of goods to be produced with patented equipment; and (4) by forcing jobbers and retailers of a given commodity to follow the pricing and marketing policies of patent-holding producers in an industry.³⁴

Control of Industrial Research.

Industrial research is highly concentrated; there is probably no other basic function of general economic activity so dominated by a few enormous concerns. The National Research Project found that "13 companies with the largest research staffs, representing less than 1 percent of all companies reporting in the National Research Council survey, employed in 1938 one-third of all research workers, or as many as the 1,583 companies with the smallest research staffs." Half of the country's industrial laboratory personnel was employed by only 45 large research laboratories, "all but 9 of which are owned or controlled by companies which are among the Nation's 200 leading nonfinancial corporations."³⁵

Perhaps the most important aspect of this concentration of industrial research is that:

By and large, the mass of specialized data assembled in the course of industrial research does not become available to anyone except the owners of the laboratory. Although a few large concerns which carry on extensive studies in fundamental sciences frequently publish the results of their experiments, this is not typical of industrial research. The proportion of total findings published by concerns having industrial laboratories is only a fraction of the proportion published by academic and governmental laboratories. Even in cases where permission is given to individual scientists working in industrial laboratories to publish their experimental findings, the management usually reserves the right to examine such technical papers, modify their contents, and approve their publication only when it finds that this would not jeopardize its competitive position.³⁶

Since industrial research is much more characteristic of large than of small concerns, and since it gives a competitive advantage to those firms able to pursue it, technology in this way indirectly gives impetus to the concentration of economic power.

Diversion of Productive Gains.

When an economy during a period of expansion has built up a productive capacity the output of which has been absorbed, or promises to be absorbed, by a corresponding measure of purchasing power, a serious decline in this purchasing power not only cuts down production but also diminishes the need for new capital outlays. A "depression" occurs, to be overcome only through a new accession of purchasing power. The investing public suffers in consequence, along with the gainfully employed and the body of consumers.

It is noted by Dr. Frederick C. Mills that during the period 1922-29 the rate of growth of production goods or capital equipment exceeded that of all classes of consumption goods. Finished capital equipment, including nonresidential construction and public works, expanded at an average annual rate of 6.4 percent, the output of machinery ad-

³⁴ See Temporary National Economic Committee Monograph No. 31, *Patents and Free Enterprise*, and Temporary National Economic Committee Monograph No. 21, *Competition and Monopoly in American Industry*, for material bearing upon the use of patents.

³⁵ Work Projects Administration, National Research Project, *Industrial Research and Changing Technology*, 1940, pp. 9-11.

³⁶ *Ibid.*, p. 47.

vanced 7.3 percent a year, while transportation equipment declined 1.1 percent a year.³⁷ In general, an increasing proportion of the total output of goods took the form of equipment designed further to expand productive capacity.

As for consumption goods during this period, the output of foods increased at an annual rate of 1.6 percent (barely above the rate of population growth, 1.4 percent); other perishable goods, with certain exceptions, also lagged behind the general advance in production, as did the production of semidurable goods like boots and shoes, textiles, etc. Among durable consumption goods, such as automobiles, furniture, electrical equipment, etc., the rate of advance was 6.3 percent a year, while that of residential construction was 4.3 percent.

This disparity between the more rapid advance of capital goods production and the slower advance of the output of consumption goods during the years preceding 1929 is held by Dr. Mills (and by other economists) to have been a factor in the collapse of that year.

Prof. Theodore Kreps has undertaken the difficult task of comparing the shares of labor and of capital in the value of the production output of certain major groups of industries during the period 1919 to 1938.³⁸ This he has done by means of indexes for three measures: what he calls "consumer funds absorbed," pay rolls, and dividends and interest. The first represents the net dollar value of goods produced in the productive process in terms of what the purchasers paid for them; the second is the sum of wages and salaries in dollars; and the third an estimate of the sums allotted to capital in the form of interest and dividends.

From summarized data Professor Kreps hazards a generalization for the economy as a whole:

* * * the outstanding fact is the manner in which dividends and interest rose faster than national income or labor income in the twenties, maintained itself in 1930, and has kept well above both national income and labor income right up to the end of the period, though the gap has been narrowing rapidly in the last 2 or 3 years. These facts show upon whom falls the real impact of depression, for labor income rose and fell with national income. Labor bore its full share of the depression. The theory held in some quarters that property—that is, stockholders and bondholders—take the risk is not borne out by the facts.³⁹

TECHNOLOGY AND THE GENERAL ECONOMY

If a "normal" economic system be thought of—one with a stationary population and no external trading, running at full employment and at full plant capacity—the sum of money saved by the recipients of income (whether individuals, business firms, or institutions), must be offset by an equivalent investment, otherwise the income stream is reduced and trouble ensues.⁴⁰

If investment exactly balances the amount that individuals choose to save, full employment will exist. New investments will naturally make use of new ideas and processes, so that an increase of output per man-hour will occur yielding productive gains over previous production from an equal expenditure of capital and labor. Some of these

³⁷ *Economic Tendencies in the United States*, pp. 274–276, 281.

³⁸ *Temporary National Economic Committee Monograph No. 7, Measurement of the Social*

³⁹ *Ibid.*, p. 105.

⁴⁰ On the topic of a balanced economy, see, among other references, A. W. Wright, *What's Wrong With the Economic System, 1939. Performance of Business*, ch. III.

accrue to consumers when enterprisers hope to enlarge their profits by reducing prices, or when competition compels them to lower prices to conserve profits. In either case lowered prices enlarge purchasing power and so aid in maintaining the balance between investment and consumption. But surplus derived in part from productive gains will ordinarily remain over in prosperous times for distribution among those who share in the production process. Whoever these are, they must enlarge their scale of living to compensate for the lessened cost of production; otherwise some unemployment must follow. As production rises, consumption must rise correspondingly. The rate in production of consumable goods must equal the rate of goods consumed.

Who are the persons sharing in the production process most likely to profit by productive gains? Since control of production is in the hands of enterprisers working for profit, they will have at their disposal whatever emerges as surplus after rent, interest, labor, and other costs are met. These costs will be kept at the lowest possible minimum as a matter of course. Some costs can be reduced by eliminating waste. But the saving of labor costs is not an advantage to the general economy if it amounts to restricting the purchasing power of the great bulk of consumers. Adequate purchasing power is required to consume the additional production made possible by improved productivity. The balance of production with consumption is by so much disturbed since labor income must advance in keeping with the increased productivity if this balance is to be preserved.

An economy with extreme differences in income and without control of income distribution can maintain a balance of production and consumption only with great difficulty. Periods of prosperity give rise to excessive savings in the higher income brackets derived from exceptional profits, followed by periods of depression induced by the corresponding reductions of labor income in the lower brackets. A serious state of imbalance may occur which is not subject to correction by processes inherent in the economy or by way of external circumstances of an historical character which have affected such a correction in the past. The current situation may be one of this order.

The canvass made in the foregoing pages of the gains and losses resulting from the use of technology in recent years clearly suggests the state of affairs just described. These gains and losses, as they affect the economy as a whole are displayed below. They are characterized as either of short-run or long-run character. By a long-run gain or loss is meant one which is an obviously permanent, newly achieved feature of the economy, one which will not be substantially altered by temporary fluctuations in its circumstances. It is not assumed that a short-run effect may not last for a considerable time; only that it is not obviously permanent and is as yet identified with a fairly short period.

GAINS AND LOSSES TO THE TOTAL ECONOMY FROM THE USE OF TECHNOLOGY IN RECENT YEARS

GAINS

Extraordinary long-run gains in productivity.

Highly significant long-run gains in the reduction of hours of labor.

Presumptive long-run gains of great importance in the reduction of arduous toil for many classes of workers.

LOSSES

Heavy short-run losses in production from the failure to exploit the new productivity.

Heavy short-run losses in man-hours of labor from the same cause.

Heavy short-run losses in income to all recipients, in consequences.

Heavy short-run losses in purchasing power due to failure to lower prices in keeping with the increase in productivity.

Substantial short-run losses in purchasing power from the failure of hourly earnings to advance with increasing output per man-hour.

Substantial long-run losses in morale from the displacement of skill in an important segment of the working population.

Substantial long-run losses in the degrading of a class of workers capable of upgrading to the scarcity levels of more exacting labor.

Heavy long-run losses in morale from an increase of tenantry as a consequence of technical large-scale farming.

Serious long-run losses to an unknown percentage of workers from nervous and mental strain, accidents, and industrial diseases.

Serious short-run losses in the use of the new technology from monopolized industrial research and from the misuse of patents.

Heavy short-run losses of income to all recipients from an excessive diversion of productive gains to capital payments with a consequent restriction of purchasing power.

Evidence of the lack of balance between investment and consumption necessary for the maintenance of a "balanced economy" is unmistakable. An excessive diversion of productive surplus to capital payments has undoubtedly included large profits of prosperous periods due to increased productivity. Uncompensated by a corresponding expansion of purchasing power, a restriction of investment was inevitable, resulting in idle money and idle men. The inadequacy of purchasing power to command the use of idle capital and idle workers is substantially accounted for by the failure of hourly earnings to parallel an increase in output per man-hour, and by the fact that in a large section of the economy prices of goods did not fall in keeping with a striking reduction in unit labor costs. The heavy depression losses in production and income reported, as well as those which continue to accumulate from a distinctly partial recovery, were the inevitable consequences of these conditions.

But a discussion of the requirements of a balanced economy is not identical with an appraisal of the economic effects of technology at large. Gains and losses of a more inclusive kind are involved. Extraordinary long-run gains in productivity might seem to represent an unqualified advantage to all parties concerned, but this productivity was itself achieved by changes in the circumstances of labor which led to very serious long-run losses—presumptive losses in morale, positive losses in skill, losses due to a reversal of a democratic trend in the distribution of workers toward the less exacting and lower-paid grades of labor and toward depressing rather than stimulating types of occupational performance. These things are not so tangible as wages and hours, production, and income, but they may have deep significance to the ultimate well-being of the working population.

Recently the advance of technology has met with obstructions. The monopolizing of much industrial research by concentrated industries, in the interest of profits primarily, has presumably resulted in net losses on the whole. The well-known misuse of patents by similar organizations has had a like effect. Thus, productivity itself—probably the outstanding gain from the economic application of technology—has become harnessed to the interests of a relatively small number

of recipients of capital income, to the disadvantage of consumers and workers and to enterprisers and investors excluded from easy access to new technical discoveries.

Over against these disadvantages are to be set long-run gains to workers of the highest significance, the reduction of hours of labor, with all this promises in the future, and the reduction of arduous toil for wage earners, farmers, farm laborers, and other classes of persons.

In general, it cannot be said that the benefits of technology have fallen exclusively to any one of the groups within the economy. The heavy depression losses were chiefly borne by consumers on the lower ranges of income, by workers, and by a preponderance of enterprisers and investors. Such advantage as there was accrued to a small number of recipients of capital income. Long-run gains, on the other hand, went to consumers especially, and notably to labor. However, if it should turn out that what have been designated short-run losses are merely indications of a long-run trend, consumers and labor, as well as enterprisers and investors, are bound to sustain further losses which cannot be compensated for by mere promises of better possibilities.

CHAPTER VI

INTERSTATE TRADE BARRIERS ¹

Our National Government was founded as a federation of States, each expecting benefits from the Union. Foremost in importance were those expected from outlawing State tariffs, and from establishing and maintaining a national area of free interstate trade. The Constitution delegated plenary powers over commerce to the Federal Government.

But in the last 25 years hundreds of laws, regulations, ordinances, and administrative orders have been passed which impede the free flow of commerce between the States and even between localities. Some of these were designed to restrain trade while others restrain trade unintentionally because there are so many conflicting provisions in various States.

Trade barriers affect prices, the movement of goods and services between States and lesser political jurisdictions, the consumption rate of the American public, and in general the level of domestic trade. They have already inflicted widespread damage on our domestic economic structure. Oleomargarine has been taxed out of the reach of millions of families who cannot afford butter. Nonuniformity in State legislation prescribing motortruck weight, length, load, and safety requirements seriously impedes highway-borne commerce. Prices are increased and markets limited by improper use of inspection and quarantine laws. Economic dislocation, slack business, and widespread unemployment are the result. In the trade-barrier movement, the "principle fundamental to prosperity is now being violated; protectionism turning inward has been invoked by State against State, industry against industry."²

The term "trade barrier," according to a generally accepted definition, is "a statute, regulation, or practice which operates or tends to operate to the disadvantage of persons, products, or services coming from sister States, to the advantage of local residents, products, and enterprises."³

Trade barrier laws may be divided into four classes:⁴

- (1) Laws which are openly discriminatory toward out-of-State enterprise.

¹ This chapter was written by Paul T. Truitt, chairman, Interdepartmental Committee on Interstate Trade Barriers, Department of Commerce. It was reviewed and criticized by Dr. Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University; Haskell Donoho, Solicitor's office, U. S. Department of Agriculture; Frank Bane, executive director, and Hubert R. Gallagher, assistant executive director, Council of State Governments; W. Y. Elliott, School of Government, Harvard University; and Dr. F. Eugene Melder, economist, Clark University.

² Raymond Leslie Buell, "Death by Tariff," *Fortune*, August 1938, vol. 18, p. 32.

³ Hearings before the Temporary National Economic Committee, Part 29, Interstate Trade Barriers, p. 15736.

See S. S. Oppenheim, "The Nature and Extent of State Trade Barrier Legislation," Proceedings of the National Conference on Interstate Trade Barriers, April 1939, p. 23.

⁴ Hearings before the Temporary National Economic Committee, Part 29, p. 15780.

- (2) Laws which are statedly nondiscriminatory, but in practice establish discrimination.
- (3) Laws which apply both to residents and nonresidents but in practice burden out-of-State enterprise. Appearing in several States, the cumulative effect is to throttle interstate trade.
- (4) Laws characterized by discriminatory or burdensome administration. Almost any State law can be administered in favor of local enterprises, since the discretionary authority vested in the agency is generally broad.

Some consider trade barriers "the greatest single obstacle to economic growth and prosperity."⁵ "There is no condition in the United States today that requires as careful watching and decisive action by business groups as the growing evil of trade barriers between our States."⁶

The multiplication of State trade barriers is now being challenged both by the States themselves and by the Federal Government. Early in 1938 the Council of State Governments recognized the movement as a menace to economic and political unity. In April 1939, at Chicago, the council conducted a National Conference on Interstate Trade Barriers,⁷ which attracted national attention. Through the council, State commissions on interstate cooperation work together for the solution of controversies. Regional conferences of State officials have resulted in united action based on the sentiment that "there is no one thing that the Governors of the States of the United States can do through their council of State governments that will benefit the whole people as much as will the successful elimination of existing interstate trade barriers and the prevention of the use of new ones."⁸

Early in 1939 the United States Department of Agriculture, long interested in barriers to the sale of farm products, published *Barriers to Internal Trade in Farm Products*. Also, early in 1939, at the request of the Council of State Governments, the Marketing Laws Survey of the Works Progress Administration published *Comparative Charts of State Statutes Illustrating Barriers to Trade Between States*.

In November 1939 Secretary of Commerce Hopkins formed the Interdepartmental Committee on Interstate Trade Barriers, composed of representatives of the Departments of Agriculture (Consumers' Counsel), Commerce, Justice, Labor, State, and the Treasury, the Federal Works Agency, the Tariff Commission, and the Interstate Commerce Commission. Committee functions include the coordination of present trade barrier activities within the Federal Government, the promotion and implementation of research on this subject wherever practicable, cooperation with States through the Council of State Governments, the elimination of trade barriers, and the carrying on of a broad program of educational publicity.

In line with this program, the interdepartmental committee held hearings on trade barriers before the Temporary National Economic Committee in March 1940. Twenty-nine witnesses testified on the

⁵ James Harvey Rogers, "From States' Rights to Autarchy, Tariff Barriers Between States," *Harper's*, November 1938, pp. 647-650.

⁶ Gov. Lloyd C. Stark, of Missouri, in an address before Wisconsin State Chamber of Commerce, Milwaukee, March 15, 1940.

⁷ See Proceedings of the National Conference on Interstate Trade Barriers, Council of State Governments, April 1939.

⁸ Fred I. Kent, "The Effect of Trade Wars on Our National Life," *ibid.*, pp. 49-59.

effects of trade barriers in motor transportation, domestic fats and oils, dairy products, nursery stock, direct selling, business use of the mails, the liquor industry, and standards.

GROWTH OF TRADE BARRIER MOVEMENT

The American domestic economy was built largely on a foundation of free trade throughout the country.⁹ But as marketing processes became more complex there arose a need for trade regulation. "Free trade does not require that commerce and transportation go unregulated."¹⁰ Relations between consuming and producing areas from Maine to California and from Oregon to Florida required prevention of fraud in weights, measures, quality, and purity. Quarantines were needed to eradicate and prevent the spread of animal and plant diseases. Processed foods required inspection to prevent adulteration.

"With the great increase in these regulations two closely related and often indistinguishable dangers arose. One was that by their complexity and multiplicity, these regulations might, quite without intention, hamper trade more than help it; the other that the tendency might arise to use such measures to raise barriers against distant competitors and thus, while possibly helping local producers or dealers, hurt other producers and dealers and all consumers" especially if administered according to local commercial caprice.¹¹ Thus appeared the first laws creating present-day trade barriers, laws designed to control adulteration, misrepresentation, and fraudulent practices in the production and sale of food.¹²

Such practices flourished during the 1860's and 1900-10, in which latter period Federal regulatory food-and-drug laws were passed. State laws taxing margarine, for example, appeared in New Hampshire in 1885, Vermont in 1886, Minnesota and West Virginia in 1891, and in South Dakota in 1897.¹³

TRADE BARRIER LEGISLATION, 1930-40¹⁴

The accelerated growth of trade barriers in recent years, while dating from the World War period, increased in importance during the depression, when a considerable variety of market freezing statutes and regulations were enacted.

About 1930, a series of interstate motor-vehicle "border wars" occurred. These, in the absence of reciprocity agreements which have abated the difficulties since 1937 took the form of requiring out-of-State trucks to register. The burden imposed was out of all proportion to the mileage covered or the amount of license fees paid or revenue received by the interstate carrier.

⁹ Hearings before the Temporary National Economic Committee, Part 29, p. 15757.

¹⁰ Philip Tocker, "Trade Barriers," Texas Law Review, vol. XVIII, No. 3, April 1940, p. 294.

¹¹ See George R. Taylor, Edgar L. Burtis, Frederick V. Waugh, Barriers to Internal Trade in Farm Products, U. S. Department of Agriculture, March 1930, p. 2.

¹² See A. J. Widderburn, Extent and Character of Food and Drug Adulteration: H. C. Bannard, "The Oleomargarine Law, A Study of Congressional Politics," Political Science Quarterly, vol. 2, pp. 547, 1887; Collins v. New Hampshire (171 U. S. 30 (1898)); Schollenberger v. Pennsylvania (171 U. S. 1 (1898)); Plumley v. Massachusetts (155 U. S. 461 (1894)).

¹³ Taylor, Burtis, and Waugh, op. cit., p. 18.

¹⁴ Data from Work Projects Administration Marketing Laws Survey research. See also Work Projects Administration Marketing Laws Survey Report, comparative charts illustrating barriers to trade between the States.

Later, several States adopted statutes levying a ton-mile tax on out-of-State trucks, unless reciprocal privileges were granted by the State of domicile. This type of law has grown to great proportions since 1929; hardly a State legislature has convened since then without passing further restrictions.

In 1933, port of entry legislation first made its appearance. The Kansas law of that year was directed merely at petroleum and petroleum products, but in January 1934 it was extended to all motor carriers entering the State. In 1935, Nebraska, New Mexico, and Oklahoma enacted this type of legislation, followed in quick succession by Arizona, California, Florida, Maine, Nebraska, Colorado, Nevada, Tennessee, and Texas. Oklahoma's law was repealed in 1939. Delaware and Missouri enacted similar laws, but do not enforce them. In 1939 New Mexico dropped direct reference to ports of entry, but the new act accomplishes the same purpose.¹⁵

Closely allied to the motor-vehicle problem is that of the merchant trucker. Idaho and Washington impose annual fees of \$300 in each county, plus a surety deposit of \$500 with the county treasurer. Itinerant merchant bills were introduced in 22 legislatures during the 1939 sessions.

Restrictive liquor legislation began in 1934 with the repeal of national prohibition and the adoption of regulatory acts by the States. The restrictive laws of California, Missouri, Michigan, Minnesota, and Kentucky were upheld by the Supreme Court, although California and Missouri have repealed their statutes.

Oleomargarine laws prior to 1929 were for the most part merely attempts to prevent fraud and raise incidental revenue. Most of the effective restrictive legislation has been enacted since that time. In 1929 Utah adopted a 5 cents per pound excise tax on uncolored margarine. In 1931, 10 States followed, and today nearly half the States have such taxes. In the highest bracket are Washington and Wisconsin, with their 15 cents per pound tax on all margarines. Since 1931 prohibitive license fees have been added to other restrictions in Montana and Wisconsin.

Since these tax measures are prohibitive, they have produced little revenue and have drastically curtailed retail outlets for margarine. In Washington, with a 15-cent tax, no revenue was collected in 1937. In the same year in Wisconsin, also with a 15-cent tax, only \$13.42 was collected. Moreover, in 1928, 3,986 stores were licensed to sell margarine in Washington, and 5,007 in Wisconsin. In 1937 only 11 stores in Washington were so licensed, and 3 in Wisconsin.¹⁶

In January 1940 Mississippi had 638 margarine outlets. Shortly thereafter the \$10 tax on retail margarine dealers and the \$50 tax on wholesalers were repealed. By September 1, 1940, the number of outlets had increased to 1,350.¹⁷

The Supreme Court upheld the Washington tax in 1934,¹⁸ indicating small possibility of judicial relief from trade barrier practices in this field. As far back as 1888 the Court permitted a State to regulate the sale of margarine.¹⁹ In 1898 pure margarine was recognized

¹⁵ Work Projects Administration Marketing Laws Survey, comparative charts of State statutes, illustrating barriers to trade between the States, Washington, 1939, pp. 3-19.

¹⁶ See Taylor, Burtis, and Waugh, *op. cit.*, pp. 20-25.

¹⁷ Food Field Reporter, vol. 8, No. 18, September 2, 1940.

¹⁸ *Magnano Co. v. Hamilton*, 292 U. S. 40.

¹⁹ *Powell v. Pennsylvania*, 127 U. S. 678.

as a proper article of commerce, whose sale, after entry into interstate commerce in the original package, could not be prohibited by the States.²⁰

A typical indication of the attitude of the dairy industry in this connection appears in the following resolution:

Resolved, That we favor legislation against the manufacture and sale of any substitutes for dairy products, believing the manufacture and sale of such products to be detrimental to the health of the public as well as harmful to the dairy industry.

Resolved, That we endorse the continued good work of the National Dairy Union in protecting the dairy interests relative to the sale of substitutes for butter.²¹

In 1935 the National Cooperative Milk Producers Federation petitioned the Congress to enact three types of legislation:²²

1. A new Federal tax of 5 cents a pound on all oleomargarine.
2. The equivalent of an import, excise, or processing tax of at least 5 cents per pound on all imported fats and oils used in the United States.
3. A Federal law to prohibit the use of interstate commerce to nullify State oleomargarine taxes.

It was further stated in support of this program that—

* * * the competition between butter and oleomargarine is entirely on the basis of price—the substitute undersells butter. The effect of this competition is to take away a part of the consumer demand for butter and to lower prices to American producers of dairy products. Detailed studies show that the spread between the retail prices of the two products is the one big factor influencing competitive relationships at any time. When the spread is high—the result usually of an increase in butter prices—oleomargarine consumption is high and butter consumption is low. A change in the spread causes a proportionate shift in consumption very quickly. These shifts are disastrous to butter prices because the lower demand forces prices down. A rise in butter prices is jeopardized immediately by this competition. The same conditions have existed since oleomargarine has been in the picture, but at no time were more damaging to butter prices than in the spring of 1935.²³

Another example of an attempt by one group to use State legislation to control a competitive group is found in the obvious interest of the railroads in laws regulating motor vehicles. In 1934 the United States Chamber of Commerce issued a report, endorsed by numerous organizations, recommending standards for highway vehicles.²⁴

The Association of American Railroads has said:

An analysis of motortrucks now in use and those engaged in interstate commerce provides further convincing proof of the fact that any increase in permissible size and weight of motortrucks is wholly unnecessary and that the

²⁰ *Schollenberger v. Pennsylvania*, 171 U. S. 1.

²¹ National Creamery Buttermakers Association annual convention, 1923, Butter, Cheese, and Egg Journal, November 14, 1924.

²² W. R. Pabst, Jr., Butter and Oleomargarine, Columbia University Press, New York, 1937, p. 85. Also Oleomargarine, hearings before Subcommittee on Agriculture on H. R. 5586 and H. R. 5587 (74th Cong., 1st sess.), 1935, p. 181.

²³ Bulletin No. 5, The Farmer Looks at the Oleomargarine Picture, National Cooperative Milk Producers Federation, December 1935, p. 67. For retaliatory measures considered by nondairy States, see Taylor, Burtis, Waugh, op. cit., pp. 17–35.

²⁴ Standards for Highway Vehicles, United States Chamber of Commerce, Washington, December 1934.

The American Association of State Highway Officials, cooperating with the Bureau of Public Roads, worked out a set of standards which were endorsed by the Automobile Manufacturers Association, National Association of Motor Bus Operators, American Petroleum Institute, Rubber Manufacturers Association, American Farm Bureau Federation, National Grange, National Highway Users Conference, Industrial Traffic League, American Automobile Association, and American Motorists Association.

assumption of Federal control of the subject to accomplish that purpose would be unreasonable.²⁵

An interesting and illuminating account of rail activities seeking to control or "evaluate and coordinate" truck competition in Mid-western States, chiefly Iowa, is found in the Senate hearings on railroads and holding companies.²⁶

"Green River ordinances" and other legislation regulating merchant truckers and itinerant merchants constitute another type of legislation enacted to protect local merchants from outside competition.²⁷ These laws require medical examinations with unreasonable frequency, high license fees, and other restrictive requirements favoring the local merchant.

The great mass of legislation affecting the dairy industry has been enacted in the past 10 or 15 years. Its primary purpose has been to protect public health, but economic conditions, such as the effect of long-distance truck competition upon the local producer, have also been important. Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Virginia, and Florida in the past 10 years have passed laws requiring all milk entering the State to come from farms that have either been licensed or inspected by such State. Since 1921, 23 States have limited milksheds and stabilized prices by price-fixing measures.

Laws requiring preference in State purchases for State residents or products (and sometimes both) have a long history. Among others, California had such a law in 1897, Colorado in 1919, and Oregon in 1901. But, within the past 10 years, such legislation has greatly increased. Since 1929, preference laws of one type or another have been enacted in the following States:

California (1931)	Montana (1933)
Colorado (1937)	Nevada (1931)
Georgia (1931) (1933)	New Jersey (1934)
Illinois (1937)	New Mexico (1933) (1938)
Indiana (1931)	North Carolina (1931)
Iowa (1934) (1937)	North Dakota (1929 to 1938)
Kansas (1931)	South Dakota (1939)
Louisiana (1934)	Utah (1933)
Maryland (1939)	Vermont (1933)
Massachusetts (1931)	Washington (1933)
Missouri (1937)	Wyoming (1931)
Mississippi (1932)	

The free movement of livestock and nursery stock is often impeded by inspection and quarantine laws. Administrative rules and regulations are often used in time of economic distress, to keep out-of-State products out of local markets. An example is the Bang's disease regulation adopted by New York State in 1932. Such action often leads to retaliation; for example, in 1938 Louisiana enacted retaliatory quarantines and embargoes.

Legislation on food standards and labels, while well known before 1929, has greatly increased since then (for example) the minimum

²⁵ See *Sizes and Weights of Motor Vehicles, A Handbook*, Association of American Railroads, Washington, 1938, p. 26.

²⁶ Investigation of Railroads, Holding Companies, and Affiliated Companies, hearings before a Subcommittee of the Committee on Interstate Commerce, U. S. Senate, pursuant to S. Res. 71, pt. 23, pp. 10161-10215.

²⁷ Hearings before the Temporary National Economic Committee, Part 29, pp. 15965-15986.

standard laws of California, Arizona, and Colorado, defining specific standards for specified fruits and vegetables). Similar grading and labeling laws have been passed since 1929 by Ohio, Indiana, Oregon, Washington, Maine, and New York (now repealed). The lack of uniformity between the requirements enforced in the various States amounts to a trade barrier. Also, there are some instances where the grading or labeling requirements give an unfair advantage to home state products.

Egg legislation has also been of long standing, but in recent years many amendments or new enactments have been made, for example,

1931—California, Iowa, Oregon, Nebraska.

1933—California, Arizona, Colorado, Florida.

1933-39—Idaho.

1934—New Jersey.

1935—Florida, Georgia, Maryland, Massachusetts, New Hampshire.

1939—Missouri.

While the lack of uniformity is in itself onerous, the provisions designed to protect home industry are particularly burdensome upon trade.

STATE POWERS AND TRADE BARRIER LAWS

The various classes of trade barrier laws are enacted and administered under one of three paramount State powers.²⁸

First is the power of taxation, which includes:

- a. Taxes levied to exclude certain products or services in favor of products or services of a home enterprise.
- b. Taxes levied to eliminate a competitive type of merchandising.
- c. Taxes which because of their multiplicity have a cumulative barrier effect.

Second is the police power, for the protection of the public health, morals, and welfare—that is, the power to inspect, quarantine, etc.

Third are the powers inherent to the State through its proprietary interest in its own natural resources²⁹ and public property. This power is now employed in 47 States to grant preferences for State products or State labor when spending public funds. The one exception is the State of Alabama.

No criticism of the States in the proper exercise of any or all of the foregoing powers is intended. Aside from the economic damages of trade restriction, the real danger in the trade barrier movement lies in the trend toward the improper use, or abuse, of these powers by local groups for commercial gain. As Attorney General Jackson has indicated, the courts and the Federal Government are naturally disinclined to impute improper purposes to the State, if the statute is apparently nondiscriminatory.³⁰ This is especially true when the State avows its intention to protect an important local need; however, the recent trend toward economic sectionalism and local protectionism has made imperative the examination of the practical effects of these statutes on interstate commerce.

²⁸ *Ibid.*, p. 15782.

²⁹ *Ibid.*

³⁰ See Robert H. Jackson, *Trade Barriers a Threat to National Unity*, Proceedings, National Conference on Interstate Trade Barriers, Chicago, 1939; "The Supreme Court and Interstate Barriers," *Annals of the American Academy of Political and Social Science*, January 1940, vol. 207, p. 70.

While Congress has plenary power over interstate commerce, full control has in one instance been given to the States. Under the twenty-first amendment, each State completely controls the liquor industry within its own borders. Even as early as 1890 the Wilson Act subjected alcoholic beverages to State police regulations immediately upon entry into the State. Court decisions on this act served to decrease its effectiveness; hence, the Webb-Kenyon Act of 1913 was passed, to be superseded in turn by the twenty-first amendment.

The constitutionality of these measures seems well established by the leading case of *State Board of Equalization of California v. Young's Market Company*.³² In this case the court upheld a California statute levying a \$500 license fee on importers of out-of-State beer. The statute was repealed in 1937, reputedly because of the enactment of retaliation laws by other States, a particular example being the Missouri law (now also repealed) which bars entry to all alcoholic liquors from any State with discriminatory liquor laws. Other retaliatory laws of varying severity have been adopted by Florida, Pennsylvania, Ohio, and Connecticut.³³ The question still persists whether the States in controlling the production, sales, and use of alcoholic beverages should be permitted to enact laws which protect home industry at the expense of out-of-State producers. Such discrimination apparently neither protects the public welfare nor stimulates commerce and trade.

In the second instance the Federal Government has, through the Hawes-Cooper Act, passed in 1929 and effective 5 years later, and the Summers-Ashurst Act, passed and effective in 1935, again loaned to the States a part of its power over interstate commerce. These acts were designed to control the production and sale of prison-made goods, a program which had been urged for more than 25 years by manufacturers, labor, and other interested groups. Prior to these acts the States had attempted to control the marketing of prison-made goods within their boundaries through labeling acts, high license fee laws, and other regulatory measures. The New York statute was invalidated because it was held to be in conflict with the commerce clause of the Constitution.³⁴ A State apparently could protect local industry against competitive goods from its own prisons, but it could not protect them against prison-made goods entering into interstate commerce without congressional approval. It was urged upon Congress that no State should have the legal right to nullify the will of a sister State; hence the removal of the interstate commerce impediment to the operation of State laws was necessary to the solution of the problem. The Supreme Court unanimously upheld the Hawes-Cooper Act on March 2, 1936, and the Summers-Ashurst Act on January 4, 1937.³⁵

In all other commercial areas there exists an "intergovernmental zone" in which Congress has the power to regulate interstate com-

³¹ United States Constitution, art. I, sec. 8, provision 3; for meaning of commerce, see B. C. Gavit, *The Commerce Clause in the United States Constitution*, Principia Press, Bloomington, 1932.

³² 299 U. S. 59.

³³ Hearings before the Temporary National Economic Committee, Part 29, pp. 15786-15788, 16025-16030.

³⁴ H. B. Hawes, Raymond A. Walsh, Bon Geaslin, *Power of Congress to Protect State Laws, Two Unanimous Supreme Court Decisions Defining Federal Authority Under Interstate Commerce Clause*, The Laws and Briefs.

³⁵ *Idem*.

merce but has not fully occupied the field. The States, therefore, have enacted a variety of laws which impose a direct, substantial, and cumulative burden on interstate commerce. A Supreme Court decision is clearly the only solution for the conflict arising, and this is a long and expensive process; therefore, little practical relief is provided since the few cases of this type reach final adjudication.

For some time, the Court has been pointing out to Congress the necessity for more adequate regulation of interstate commerce. As far back as 1879, in *Guy v. Baltimore*,³⁶ Justice Harlan said:

No State can consistently with the Federal Constitution, impose upon the products of other States, brought therein for sale or use, or upon citizens because engaged in the sale therein, or the transportation thereto, of the products of other States, more onerous public burdens or taxes than it imposes upon the like products of its own territory.

If this were not so, it is easy to perceive how the power of Congress to regulate commerce with foreign nations and among the several States could be practically annulled, and the equality of commercial privileges secured by the Federal Constitution to citizens of the several States be materially abridged and impaired.

A number of Supreme Court decisions from 1880 to 1930 attempted to establish a line of demarkation on interstate trade barriers.³⁷ In certain comparatively recent decisions, the Supreme Court has stated applicable principles and has issued warnings to the States. In *Baldwin v. Seelig*,³⁸ Mr. Justice Cardozo stated:

What is ultimate is the principle that one State in its dealings with another may not place itself in a position of economic isolation. Formulas and catchwords are subordinate to this over-mastering requirement. Neither the power to tax nor the police power may be issued by the State of destination with aim and effect of establishing an economic barrier against competition with the products of another State or the labor of its residents. Restrictions so contrived are an unreasonable clog upon the mobility of commerce. They set up what is equivalent to a rampart of customs duties designed to neutralize advantages belonging to the place of origin. They are hostile in conception as well as burdensome in result.

In the recent tax case of *McGoldrick v. Berwind-White Coal Mining Co.*,³⁹ Justice Stone pointed out that the problem involved a weighing of the right of interstate commerce to protection from unfair State laws, and that of the States to collect a fair share of its taxes from interstate commerce.

No attempt was made in the T. N. E. C. hearings to analyze constitutional issues. The legal staff of the W. P. A. Marketing Laws Survey, after long and careful study, concluded that most of the laws analyzed by the Survey as creating trade barriers are probably constitutional within the decisions of the Supreme Court,⁴⁰ although the Court has frequently indicated that court decisions alone cannot solve the trade barrier problem.

*Motor Vehicles.*⁴¹

The courts have approved small nondiscriminatory flat license and registration fees based on horsepower, or have at least required the State to show that these fees bear a reasonable relation to highway use. In practice, however, the State may meet this requirement by a purely formal showing, and the burden rests on the taxpayer to show that the fee is unreasonable. The difficulty of an attempt by a single litigant

³⁶ 100 U. S. 434.

³⁷ Hearings before the Temporary National Economic Committee, Part 29, pp. 16087-16114. See also Tocker, op. cit., and Taylor, Burtis, and Waugh, op. cit.

³⁸ 294 U. S. 511 (1935).

³⁹ 309 U. S. 33.

⁴⁰ Hearings before the Temporary National Economic Committee, Part 29, p. 15783.

⁴¹ Ibid., pp. 15938-57, 16001-24, 16031-81.

to prove payment of an unreasonable sum for use of the highways indicates the need for coordination between State and Federal law, and a greater degree of uniformity between State laws.

The assessment of mileage taxes would seem a more equitable method of levying just charges for highway usage. The lower courts have uniformly followed the Supreme Court in approving a mileage tax on interstate carriers, in the absence of proof of unfair discrimination, since it was reasonable on its face.

Gasoline sales taxes are likely to be a very small burden on interstate commerce since all vehicles, whether in inter- or intrastate commerce, must pay the tax. Taxes on gasoline carried as a reserve, and not used within the taxing State, are not related to the use of the road and burden the free movement of interstate motor carriers; hence they have been held invalid by the Supreme Court.⁴²

Nontax, nonuniform State regulations pertaining to weight, length, load, speed, safety requirements, lighting equipment, permit requirements, etc., constitute a most vexing deterrent to interstate highway-borne commerce. Testimony in the T. N. E. C. hearings, as well as various court decisions, clearly indicates that congressional action is needed to eliminate this difficulty. The Motor Carriers Act of 1935 was passed largely because the States were apparently unable to regulate competition between interstate motor carriers. However, the States were at no time divested of power to discriminate in favor of their own carriers. Generally carriers for hire must, after receiving a Federal certificate of convenience and necessity, apply to State administrative boards for license. The granting or refusing of these State licenses supposedly depends upon safety factors, as, for example, road congestion. As a practical matter, however, these boards often are able to weigh the intra- and interstate competitive situation and thus achieve unfair discrimination in the granting of licenses.

*Merchant Transfers and Itinerant Merchants.*⁴³

Interstate trade barriers applying to the merchant trucker and the itinerant merchant are many. Some of the fees exacted by the States discriminate against the itinerant because he comes from another State, and are clearly illegal in view of past court decisions. They are as burdensome as they are illegal, however, because of the financial inability of these small enterprises to take their cases through the courts.

Moreover, not all discriminatory taxes upon itinerants have been held illegal. A leading case⁴⁴ ruled that the only question involved was that of "due process" under the fourteenth amendment and, in that case, the issue was not clearly so unreasonable as to warrant overthrowing the statute. Other cases condemned discrimination against merchants on the ground of nonresidence or on the sale of out-of-State goods. Generally, questions of legality aside, there are serious doubts concerning the ability of nonresident itinerant truckers and merchants to avoid unfair discrimination based on nonresidence.

Labeling, Grading, and Standards.^{44a}

Trade barriers as a result of State labeling and grading regulations appear when discriminatory measures give domestic products an unjus-

⁴² *McCarroll v. Dixie Greyhound Lines*, 309 U. S. 176. February 12, 1940.

⁴³ Hearings before the Temporary National Economic Committee, Part 29, pp. 15783, 15967-86, 16088-89, 16093-96, 16100-01.

⁴⁴ *Singer Sewing Machine Co. v. Buchell*, 233 U. S. 304 (1914).

^{44a} Hearings before the Temporary National Economic Committee, Part 29, pp. 15818-24, 16088-89, 16093-96, 16100-01.

tified advantage. So long as it does not directly interfere with the commerce power of the Federal Government, a State may legally require producers to mark products with the name of the home State. But beyond this the power is uncertain.

Three classes of cases arise. First, there are those in which the State of destination requires the name and address of the producer to be shown on commodities. This requirement may be a serious barrier to interstate trade, especially if used in conjunction with a home-State marketing campaign. Second, are the cases involving the labeling of foreign but not domestic products. Court decisions on the validity of such legislation are divided. Third, are those boldly discriminatory cases which deny out-of-State products the use of accurate descriptive terms likely to stimulate the sale of the product. Obviously, an adequate Federal labeling and grading statute might aid the States in their efforts to regulate interstate commerce, and might eliminate considerable confusion.

*Quarantine.*⁴⁵

Powers of quarantine sometimes completely control the interstate movement of various agricultural products and livestock. When inspections made by duly qualified out-of-State inspectors are not accepted, the prohibitive cost of travel for State inspectors provides a substantial barrier to interstate trade. Furthermore, duplicate inspection serves no useful purpose.

ECONOMIC EFFECTS OF TRADE BARRIERS⁴⁶

The effects upon the protected market are specific. The flow of entering goods is curtailed or stopped, and local producers enjoy the stimulus of the unsatisfied demand which, they think, must perforce turn to them to supply the goods formerly brought in from outside. But the effects on the rest of the country are often hard to discern, especially when the barricaded market is relatively small, for the sales lost by outsiders may represent but a small proportion of the total supply and demand.

In cases of this kind, published volume and price figures are of little help in determining the effect of a trade barrier. Seasonal changes in supplies, inaccuracies in reporting, technological developments, shifts in demand, variations in supply (of farm products) caused by weather conditions—all these and many other factors are of greater importance, quantitatively, in accounting for market changes than a slight decrease in demand caused by loss of a market which formerly took, for example, 1 percent of the total output. The difficulty of isolating the effects of trade barriers and the scarcity of data on the interstate movement of commodities are the two chief reasons for the lack of statistical measurements of the economic effects of internal trade barriers.

The difficulty of measuring the effects of individual trade barriers accounts in part for the popular notion that trade barriers as a whole are a rather harmless, though deplorable, phenomenon. But one might as well conclude that because a single termite looks insignificant a colony of them must be harmless. For it is not individual trade bar-

⁴⁵ *Ibid.*, pp. 15912-35, 15999-16000, 16088-89, 16093-96, 16100-01.

⁴⁶ Taylor, Burtis, and Waugh, *op. cit.*

riers, but their cumulative effect, that makes the problem one of grave importance.

How, then, appraise the economic effects of trade barriers if they cannot be directly measured?

In general terms we know that trade barriers—

- (1) Raise prices in the protected markets ;
- (2) Encourage shifts in production to areas with higher production costs ;
- (3) Interfere with regional specialization ;
- (4) Raise the cost (or lower the standard) of living.

But no adequate statistical measurement exists, although there are legions of striking examples. During the hearings before the T. N. E. C., a witness pointed out that in the Washington and New York City markets, which are closed to western cream, consumers paid 16 and 17 cents per half pint for cream, while in the Boston area, which is open to western cream, they pay only 11 cents a half pint.⁴⁷

The price-raising effect of barriers directed not against specific commodities but against particular methods of handling or modes of transportation is perhaps not so evident, but nevertheless exists. Wherever there is effective competition among dealers and middlemen, goods are handled by the least expensive methods available. Merchants who do not use such methods are undersold and squeezed out by those who do. Therefore, barriers restricting the use of certain methods of handling or of transportation force the use of other and perhaps more expensive methods. The resulting increase in costs widens the margin between producers and consumers, and a part of the increased margin will be reflected in higher prices in the area where barriers of this sort are in effect.

Another price-raising barrier is the imposition of State licensing and registration fees which, when they are imposed by more than a few States and more than nominal in amount, seriously burden interstate business in relation to intrastate businesses. Even in States where concerns so burdened have no local competitors, costs are raised and competition is reduced. For unless they make an abnormal profit on the article they cannot absorb the tax, and must raise the price.

The second type of economic effect mentioned above is illustrated in the dairy industry.⁴⁸ The managers of several midwestern milk plants all reported that their volume of cream shipments had been severely curtailed by the continued stiffening of regulations in the eastern markets. The ultimate effect on midwestern dairy farmers was not touched upon but may be surmised. The milk that formerly was sold through these plants in the form of sweet cream must go into a cheaper use, probably into butter. Milk production is decreased in areas where costs are relatively low, and encouraged in areas where they are relatively high.

The benefits which producers anticipate from enactment of trade barrier legislation are often disappointing. The prohibitive margarine taxes in some dairy States provide an interesting case in point. Even if the sale of margarine were prohibited throughout the United States, the price of butter would not rise appreciably,⁴⁹ hence stopping the consumption of margarine in a single State which exports butter cannot be expected to substantially raise the farm price of butter.

⁴⁷ Hearings before Temporary National Economic Committee, Part 29, p. 15960.

⁴⁸ *Ibid.*, pp. 15869-15900, 15903-15912.

⁴⁹ See Dairy Adjustment Division, Agricultural Adjustment Administration, *What and Why*, Washington, 1934.

Also, Michigan protects wine made from Michigan grapes by imposing a high differential tax on imported wines. In anticipation of an increased demand, Michigan growers increased their acreage of wine grapes, only to find that Michigan consumers did not substitute Michigan wine for other wines, but turned to other alcoholic drinks instead. The per capita consumption of wine declined in Michigan, while the per capita consumption of other alcoholic beverages increased. As a result, only a part of the crop of wine grapes was sold at the protected price of \$55 per ton.⁵⁰ The rest have had to be sold on the regular market at from \$10 to \$12 a ton.

In general, Nation-wide commerce is more complex than State, and State than local commerce. When production is specialized and the gap between manufacturers and farmers, on the one hand, and consumers, on the other, is wide, a much more highly organized and more extensive distribution system is required than when trading is on a local basis. In other words, middlemen are necessarily more important to the economic system when trade is on a Nation-wide basis than when it is on a local scale. Hence dealers as a group stand to lose by trade barriers which tend to restrict Nation-wide commerce in favor of intrastate or even local trade.

When prices are raised by trade barriers, all consumers suffer. But those at the bottom suffer most, because the increase represents a greater proportion of their incomes.

This regressive effect of trade barriers is intensified by the application of a great many of them to farm products, therefore affecting food prices. Poor people spend a much larger share of their income on food than do people of more abundant means. Restrictions on the movement of farm products are, therefore, doubly regressive.

Sales taxes on margarine are especially open to this criticism. There is little room for doubt that margarine is consumed chiefly by families of moderate and low incomes,⁵¹ so that these taxes fall almost entirely on the poorer members of the community.

A survey of the economic effects of trade barriers would be incomplete if it did not call attention to effects on individual business enterprises. Results which may be imperceptible in general statistics often loom large in the affairs of manufacturers, dealers, or farmers directly affected. Two examples will suffice to indicate the problems.

A nurseryman in a Texas town 10 miles south of the Oklahoma border formerly did about half his business in Oklahoma, having no competitors in that direction within 50 miles. Then the State of Oklahoma devised the following requirements: He had to stop at a port-of-entry station. (This law has since been repealed.) There he had to show an Oklahoma commercial license for the truck, a bill of sale, and an Oklahoma permit to haul commercial loads on the Oklahoma highways. He had to deposit \$50 as collateral against payment of his ton-mile tax on his way out of the State, and he had to report the itinerary he expected to follow. Then, he had to show a permit, costing \$20 a year, to sell plants he had grown and plants he had bought for resale. Moreover, he was not permitted to carry anything on his truck that had not been previously ordered. Rose stock had to be

⁵⁰ F. Eugene Melder, *State Trade Walls*, Public Affairs Pamphlet No. 37, 1939, p. 22.

⁵¹ See Hazel K. Stiebling, Ester F. Phipard, *Diets of Families of Employed Wage Earners and Clerical Workers in Cities*, Department of Agriculture Circular No. 507, January 1939; also How W. P. A. Wages Are Spent, Bureau of Labor Statistics, *Monthly Labor Review*, April 1940, p. 929.

accompanied by a certificate showing that it had been graded as to color and variety. His business was cut in half.⁵²

In April 1939 a Connecticut ice cream manufacturer located near the New York State line, who sells about one-half his output in New York, was refused a renewal of his license to ship ice cream into New York. Upon inquiry, he found himself a victim of retaliation. Connecticut had refused to permit the importation of ice-cream mix unless it was subsequently pasteurized in Connecticut—even if it had already been pasteurized and met Connecticut's standards of quality.

Conferences between State officials proved unsuccessful, but the New York authorities relented by permitting him to continue to sell in New York. However, when April 1940 rolled around he was again threatened with loss of his license for the same reason. He is still in constant danger of having half of the market for his product taken away from him.⁵³

SOCIAL EFFECTS OF TRADE BARRIERS

If the economic effects of trade barriers are often difficult to measure, there is nothing complex or obscure about their social effects. Trade barriers are an unfailing source of ill will, hard feelings, and resentment.

The dispute between New York and Connecticut over regulations affecting milk and dairy products goes back at least 9 years, when Connecticut suddenly forbade New York farmers to ship milk into the State.⁵⁴ This action closed markets that had been profitable to New York State farmers living close to the Connecticut line. Indignation ran high. Mass meetings were held. New Yorkers living near the border decided to boycott Connecticut merchants. In one border town alone the loss was estimated at \$25,000 a week. Even though the embargo was rescinded after 30 days, some of the dairy concerns in Connecticut cities who had been buying milk from New York farmers never resumed their purchases.

Enforcement of State motor-vehicle laws has given rise to a whole series of incidents involving strained relations between States. Non-uniformity in these laws has led to differences in the terms on which neighboring States will admit out-of-State trucks, and this lack of reciprocity has led in turn to disputes and "border wars." A study of reports in the press from 1931 to 1937 revealed 13 "wars" involving 29 different States.⁵⁵ These "wars" were of course bloodless, but they were accompanied by a considerable show of bad feeling. One case is reported in which a Nebraska constable fired on a Kansas truck during a motor-vehicle dispute between the two States. In the course of a dispute between Maine and adjoining States, Maine held a New York truck driver and forced him to pay \$75 for a license fee for his truck; whereupon New York held two Maine truck drivers for not having New York plates. A trucker with a Tennessee registration was halted on the Baltimore-Washington highway, and fined \$30 for

⁵² Melder, *op. cit.*, pp. 5-7.

⁵³ Through cooperation of the Interdepartmental Committee on Interstate Trade Barriers, the Council of State Governments, New York and Connecticut Commissions on Interstate Cooperation, this case temporarily was settled, within 6 days after being reported to the Interdepartmental Committee, by the New York authorities inspecting the plant of the Connecticut manufacturer and issuing a certificate for 1940. Information from files of Interdepartmental Committee, reported by complainant, Rider Dairy Co., Danbury, Conn.

⁵⁴ Hawes, Walsh, Geaslin, *op. cit.*

⁵⁵ See Taylor, Burtis, and Waugh, *op. cit.*, pp. 41-43.

not having a Maryland license plate.⁵⁶ Then his truck was towed to the District of Columbia line and he was required to pay towage charges. This unfriendly treatment was in retaliation for Tennessee's refusal to permit out-of-State trucks to use her roads, even for one trip as in some States, without taking out a Tennessee license.

These are spectacular cases. But disputes over the treatment of motor vehicles are frequently accompanied by numerous arrests of truckers, delaying of trucks, and spoilage of perishable foods.

Probably no trade barrier measure has provoked so much resentment and so many threats of retaliation as the margarine taxes.⁵⁷ (Many Southern States levy taxes on the sale of margarine but exempt margarine made from domestic oils.) No sooner had Wisconsin passed its 15-cent per pound tax on all types of margarine than a wave of protest came from the South. The Governor of Alabama and the Commissioner of Agriculture of Louisiana issued public protests. The Mid-South Cotton Growers' Association stated in its official publication:

We are Wisconsin's best customer for butter, cheese, condensed milk, farm implements, farm light plants, plumbing supplies, and road building machinery.

Without our patronage she would indeed be in a sad plight. She has invited such a calamity upon herself. She has chosen to wall herself in. Let her see how she likes it.

Cotton oil is to the Cotton States what butterfat is to Wisconsin and what hog lard is to the corn-hog States. Any interferences with the free movement of cotton oil strikes at the heart of the cotton grower and the South generally—and cannot be tolerated.

There have been numerous reports that firms in the South canceled orders for the industrial wares of Wisconsin. Some southerners have suggested that the taste of Wisconsin beer has grown bitter to their tongues. Recently a story appeared in the press that a Texas firm had issued the following memorandum to members of its purchasing department:

Maybe we are buying some things in Wisconsin that we could buy elsewhere. We don't want to cut our noses off to spite our faces, but * * * let's see what we can do about cutting the nose off some of those fellows who are trying to spite us, and the sooner the better.

In other words, if Wisconsin wants to tax heavily one of the major products of the South and a very fine product at that—margarine—why should we be so anxious about drinking their beer or buying Wisconsin manufactured products.⁵⁸

It is impossible to state whether boycotts had seriously curtailed the southern market for Wisconsin products. Until the fall of 1939 no Southern State had taken any official retaliatory action, though Arkansas had considered a proposal to tax at the rate of 25 percent ad valorem all Arkansas sales of milk, cream, butter, and apples grown in Wisconsin, Minnesota, Iowa, and Washington. In October 1939, however, the director of the Georgia Department of Public Welfare "ordered the Federal Surplus Commodities Corporation to stop distributing Wisconsin dairy products to relief clients in Georgia until the Northern State withdrew its tax on oleomargarine."⁵⁹

In 1934, before the alarm over internal trade barriers had become as widespread as it now is, Charles A. Urner, commenting on certain egg laws with rather extreme trade barrier features, said: "Such rank discrimination is in my opinion one of the neatest tools to use to take

⁵⁶ Hearings before the Temporary National Economic Committee, Part 29, p. 16048.

⁵⁷ *Ibid.*, pp. 15823-15867, 15784-15786.

⁵⁸ Dairy Produce, November 30, 1939, p. 3.

⁵⁹ New York Journal of Commerce, October 5, 1939.

the United States apart that has been fashioned since the days of slavery."⁶⁰

Laws deliberately used to give home-State producers an advantage over out-of-State producers are outward signs of an extreme sectionalism—of a frame of mind which consents to helping one group of American producers by hurting another. A similar frame of mind during the twenties and thirties kept the little nation-states in central and southeastern Europe from sinking their differences and cooperating economically on a broad scale and, as events have proved, was one of the major factors leading to their downfall.

There are many trade barrier situations which have grown up accidentally out of nonuniformities in State laws, or as unanticipated consequences of laws passed for a legitimate purpose. These situations, however, as well as those deliberately created, have caused friction and ill will.

It does not seem likely that internal trade barriers will succeed in "taking the United States apart," but it does seem likely that, if they are allowed to continue, they may seriously impair our Federal system.

The right to self-government is inextricably enmeshed with the duty of self-restraint. Just as individual freedom is eventually curbed when the individual fails to subordinate the exercise of his liberty to the general welfare of the community, so the priceless States' rights will gradually be lost to Federal dominance if the State governmental agencies fail to give due consideration to equally priceless interstate rights.⁶¹

PRESENT INTERGOVERNMENTAL DEVICES

There are several existing intergovernmental devices which may be used to combat the trend toward trade barriers. Such devices have been described as "short circuits,"⁶² since they provide direct contact between structurally separate portions of the governmental system.

Interstate Compacts.

The development and use of interstate compacts, reciprocal agreements, etc., came early in the history of American intergovernmental devices. The Constitution, in forbidding the States to enter into any "agreement or compact without the consent of Congress,"⁶³ indirectly assents to this method of contact among the governments of the several States. The first State compact, ratified in 1789, settled a boundary dispute between Virginia and Kentucky. Since that time 70 compacts have been negotiated and 59 of them formally approved by State legislatures and Congress. In several instances, although Congress has given previous consent to the enactment of a compact on a particular subject, the States have failed to take action.

During the past 5 years some 20 interstate compacts have been promulgated, covering such subjects as crime control, water resources, oil conservation, tobacco regulations, as well as establishing in some instances park, bridge, and transportation authorities. Thirty-one of the compacts adopted and in force at the present time deal with boundary and jurisdictional adjustments, 13 are concerned with the

⁶⁰ American Creamery and Poultry Products Review, October 17, 1934, p. 877.

⁶¹ Statement prepared by marketing committee of the National Association of Commissioners, Secretaries, and Directors of Agriculture. (Taylor, Burtis, and Waugh, op. cit., p. 4, gives a complete list of committees and membership, and the full statement.

⁶² Garland C. Rount, "Interstate Compacts and Administrative Cooperation," *Annals of the Academy of Political and Social Science*, January 1940, vol. 207, p. 93.

⁶³ U. S. Constitution, art. I, sec. 10, provision 3.

regulation of interstate streams, harbors, and water resources, 11 of them apply to engineering projects, 3 to the regulation of certain economic activities, and 1 to the conservation of natural resources.⁶⁴

Prior to 1920 nearly all State compacts were used in the settlement of disputes over State boundaries and problems in connection with criminal jurisdiction. They have been used more recently to effect improvements dictated by public need. Interstate water and transportation problems between New York and New Jersey led to a series of agreements regarding the construction of the Hudson tubes, the Holland tunnel, the George Washington Bridge, the regulation of the harbor through the port authority, and the Palisades Interstate Park. The disposition of water resources on an interstate watershed was arranged through the Colorado River compact. Six States have consented to the allocation of State petroleum production in accordance with the oil compact of 1935.

One water pollution compact dealing with the Ohio River has been ratified by Illinois, Indiana, Kentucky, New York, Ohio, and West Virginia. Another covering the Potomac River and its tributaries has been approved by the District of Columbia, Maryland, and Virginia.⁶⁵

The Interstate Compact for the Supervision of Out-of-State Parolees and Probationers, drafted by the Interstate Commission on Crime and sponsored by many of the commissions on interstate cooperation, is now in effect in 32 States, thus constituting the most widely adopted interstate compact this country has ever known. The Crime Commission was organized in 1935 following the first interstate crime conference, which was called by the New Jersey Commission on Interstate Cooperation.

Boundary agreements usually provide for permanent settlements. In other cases, where permanent settlement is not possible, periodic revision is stipulated, or permanent administrative agencies are set up, with sufficient discretionary power to decide questions incidental to the main objectives. The compacting States frequently enact other legislation in order to carry out the provisions of the agreement.

Interstate compacts are unlikely to be successful unless they include all the States involved in the problem. The compact method is adequate to deal with definitely localized interstate problems, but it is less successful where the problem involves competitive interests of a State in the national market, or where the compact is not signed by all the States concerned with the problem.

Compacts are difficult to negotiate, because the legal form demands absolute agreement, and difficult to ratify since the approval of the compacting States is wholly voluntary. Although they are considered irrevocable until the period of expiration, or only after a specified notice period of withdrawal, there is no certainty of their continued enforcement. The best use of the interstate compact is in agreement on sectional or local problems.

The interstate compact offers no short cut around the delays which are frequently a necessary part of democratic government. The decisions and solutions reached by such agreements are not definitely

⁶⁴ Recent Development in Interstate Compacts (adapted from a study by Mary Alice Dodd, *United States Law Review*, February 1939, pp. 86-88), *The Book of States*, 1939-40, published by Council of State Governments, pp. 124-127.

⁶⁵ See Hubert R. Gallagher, "Work of the Commissions on Interstate Cooperation," *Annals of the American Academy of Political and Social Science*, January 1940, vol. 207, p. 103.

valid. Hence, interstate compacts, while having some usefulness, are not adequate for controlling interstate trade barriers.

Grants-in-Aid.

A second device frequently suggested for controlling trade barriers is that of using grants-in-aid. The increase in use of this method of financing has been rapid since 1916. The passage of the highway act of that year brought the total Federal grants-in-aid disbursements to \$100,000,000 in 1918.⁶⁵ During the next 10 years, the only substantial grants-in-aid were for highway construction. With the coming of the depression and its attendant financial stresses, funds of greater magnitude and for many other purposes were provided the States. The figure now may well be over \$1,000,000,000 annually, a sum constituting roughly one-half of all State and one-sixth of all local expenditures.

The use of grants-in-aid has been questioned on the grounds that the extensive use of this power "almost eliminates any question of Federal constitutionality." There is also the tendency for political interests in State governments to use Federal funds for unnecessary projects. Wealthier jurisdictions, it is alleged, are taxed more heavily in order to pay the costs of helping poorer jurisdictions.

But advocates of the plan believe that it provides a greater degree of flexibility sorely needed under our rigid constitutional system. It also constitutes one type of tax reform in that it puts both taxation and the financing of national services on a basis of greater equality from the standpoint of both need for the services and ability to bear the tax load. Moreover, the institution of State government has been strengthened by the provision of funds for regular functions which would otherwise not be performed. The utilization of grants-in-aid in the solution of the trade barrier problem would involve an effort to make State laws comparable,⁶⁷ a careful study of the facts in each case, and the development of adequate State administration to assure efficient spending of the grant-in-aid funds.

Council of State Governments.

Under the Constitution, the powers of Federal Government are limited; all powers not definitely assigned to the Federal Government are reserved to the 48 States. Problems frequently arise which no single State can solve, and for which Federal action alone may not be suitable—sometimes because the necessary constitutional power is lacking, sometimes because the problem is regional rather than national, and sometimes because Federal action needs to be supplemented by State cooperation. One agency which provides a basis for cooperation between Federal and State Governments is the Council of State Governments, which was set up in 1925 and organized on its present basis in 1935.⁶⁸ It also aids in the exchange between States of valuable information on State administration and State legislation.

⁶⁵ Joseph P. Harris, "The Future of Federal Grants-in-Aid," and George C. S. Benson, "Federal-State Personnel Relations," both in *Annals of the American Academy of Political and Social Science*, January 1940, vol. 207, pp. 14 and 38; H. J. Bitterman, *State and Federal Grants-in-Aid*, New York Tax Commission, p. 20; V. O. Key, Jr., *The Administration of Federal Grants to States*, Public Administration Service, 1937; Sidney Webb, *Grants-in-Aid, A Criticism and a Proposal*, Longmans, New York, 1920, for development of this device in the British Empire.

⁶⁷ Hearings before the Temporary National Economic Committee, Part 29, pp. 16097-16109.

⁶⁸ *The Book of the States*, 1939-40 and prior issues.

The growth of the Council has served to emphasize the need for efficient cooperation between all levels of Government.

The Council, as the secretariat of the Governors' Conference, the National Association of Attorneys-General, and the National Association of Secretaries of State, acts as a clearing house and research center not only for them but also for legislators and legislative reference bureaus.

It provides a medium through which many Federal-State and interstate problems are resolved and a forum for the consideration of an increasing number of problems which overlap State boundaries: Questions of flood control, stream pollution, highway safety, interstate truck regulations, conflicting taxation, interstate trade barriers, liquor control, relief, social security, and transiency. In Chicago in April 1939, at the National Conference on Interstate Trade Barriers organized by the Council of State Governments, some 400 State officials from 43 of the 48 States met, adopted resolutions against the rapidly developing menace of interstate trade barriers, developed a plan of action, and to all intents and purposes stopped the spread of such barriers in the United States.⁶⁹

Commissions on Interstate Cooperation.

The Commissions on Interstate Cooperation,⁷⁰ which have been established in 44 States, are the backbone of the Council of State Governments. Practically all these commissions consist of 10 legislative members and 5 administrative officials. Many are fully organized with adequate staffs and funds for carrying on their functions. By assuming the initiative in matters of interstate or interregional conflict they have achieved progress in eliminating many types of trade barriers. California, Missouri, Texas, Ohio, Oregon, Connecticut, and other State commissions on interstate cooperation have vigorously opposed the enactment of new trade barrier laws and have secured the repeal of others.

Thus far the commissions have been more effective in preventing the passage of proposed trade barrier legislation than in repealing existing trade barrier laws; indeed, opposition from pressure groups and lobbies has on occasion defeated the work of the commissions. Generally, however, the Council of State Governments has demonstrated that this method of cooperation among the several States and between the States and the Federal Government is valuable, practical, and necessary.

⁶⁹ Proceedings of the National Conference on Interstate Trade Barriers, April 1939.

⁷⁰ For organization, roster, etc., see the Book of the States, 1939-40; also Gallagher, *op. cit.*, p. 103.

CHAPTER VII

CONCENTRATION OF OWNERSHIP OF CORPORATE ASSETS, EARNINGS, AND PROFITS¹

A knowledge of the concentration of ownership of corporate assets, earnings, and profits is vital to a study of investment problems and the concentration of economic power. The growing tendency of many corporations to depend upon internal financing for their depreciation, replacement, and expansion costs emphasizes the problem of possible outlets for individual savings, as well as that of control over investment decisions.

Some realization of the immense wealth in the hands of corporations may be gained from the fact that in 1937 the total assets of corporations submitting balance sheets to the Bureau of Internal Revenue were over \$303,000,000,000. The value of the land, buildings, and equipment of these corporations is listed as over \$100,000,000,000.² Corporations are significant not, however, only because they hold property but because they shape economic activity. They provide great reservoirs of savings and of credit for the economic system. It has been estimated that they produce 57 percent of the national income.³ They are the most important contributors to business activity and business wealth. W. L. Thorp estimated that corporations do from 60 to 65 percent of the total volume of business in the country. (See table 12.) Berle and Means estimated that 78 percent of American business wealth was corporate wealth.⁴

TABLE 12.—*Importance of corporate activity by branches of industry, 1937*

INDUSTRY AND PERCENT OF BUSINESS DONE BY CORPORATIONS IN EACH INDUSTRY		Percent
Agriculture	-----	7
Mining	-----	96
Electric light and power, and manufactured gas	-----	100
Manufacturing	-----	92
Contract construction	-----	36
Transportation	-----	89
Communication	-----	100

¹ This chapter was written by Dr. Eleanor Poland, economist on the Temporary National Economic Committee staff. Much of the data were taken from Temporary National Economic Committee Monographs No. 12, *Profits, Productive Activities, and New Investment*, and No. 29, *Distribution of Ownership in 200 Largest Nonfinancial Corporations*. The chapter was reviewed by Dr. Dewey Anderson, executive secretary of the Temporary National Economic Committee, Dr. Maurice Leven, formerly of the Brookings Institution, and Dr. Oscar Altman, senior economist of the National Resources Planning Board, Washington, D. C.

² U. S. Treasury Department, *Statistics of Income, 1937*, Part II, p. 22. The assets figures exclude depreciation, depletion, and reserve for bad debts.

³ Twentieth Century Fund, *Big Business, Its Growth and Its Place*, New York, 1937, p. 17.

⁴ Hearings before the Temporary National Economic Committee, Part 1, *Economic Prologue*, p. 97; A. A. Berle and G. C. Means, *The Modern Corporation and Private Property*, Macmillan, New York, 1932, p. 31.

The importance of corporations in different industry groups varies greatly, as can be seen from table 1. (See also L. S. Lyon, and associates, *Government and Economic Life*, Brookings Institution, Washington, 1939, vol. I, pp. 493-495.)

TABLE 12.—*Importance of corporate activity by branches of industry, 1937—Con.*

	Percent
Trade	58
Finance	84
Government—including work relief wages	58
Service	30
Miscellaneous	33

Source: Hearings before the Temporary National Economic Committee, Part 1, p. 96.

CONCENTRATION OF OWNERSHIP OF ALL CORPORATIONS

Since corporations are owned by their stockholders, a study of the ownership distribution of stockholdings reveals the ownership distribution of corporate wealth. It has often been claimed that there is a rather widespread dispersion of ownership of the stock of corporations. It is true that there are many stockholders and that in some of the largest corporations the principal holder owns less than 1 percent of the outstanding stock.⁵ Estimates of the total number of stockholders of American corporations range from 4 million to 12 million.⁶ Even if the larger figure is used, the owners of American corporations would comprise less than one-third of the total 29 million families and 10 million single individuals in the Nation.⁷ But

TABLE 13.—*Dividends of domestic corporations received, by various types of dividend receivers, 1927 and 1930¹*

Type of dividend receiver	1927		1930	
	Amount of dividends received	Percent of total dividends paid by American corporations	Amount of dividends received	Percent of total dividends paid by American corporations
Financial corporations ²	\$559,000,000	8.7	\$1,076,000,000	13.1
Transportation and other public utility corporations	547,000,000	8.5	740,000,000	9.0
All other corporations	552,000,000	8.6	755,000,000	9.3
All corporations	1,658,000,000	25.8	2,571,000,000	31.4
All individuals	4,620,000,000	71.9	5,432,000,000	66.2
Miscellaneous ³	145,000,000	2.3	199,000,000	2.4
Total dividends paid by domestic corporations	6,423,000,000	100.0	8,202,000,000	100.0

¹ From Statistics of Income, for 1927 and 1930. Not all individuals receiving dividends report them for income tax purposes. Estimated dividends paid to nonreporting individuals were added to reported dividend receipts.

² Includes banks and insurance and real estate companies, holding companies, investment trusts, etc.

³ Includes dividends received by institutions not filing income tax returns and by foreign holders of American stocks. Estimated by subtracting dividends received by all domestic corporations and individuals from total dividends paid by domestic corporations.

Source: Twentieth Century Fund, *The Security Markets*, New York, 1935, p. 59.

⁵ Berle and Means, *op. cit.*, p. 47.

⁶ *Ibid.*, appendix K; and Twentieth Century Fund, *The Security Markets*, New York, 1935, pp. 50-60. Although many corporations publish figures of the number of stockholders registered on their books, this does not give an accurate estimate of the actual number of shareholders, because of the duplication in figures of book stockholdings (*Ibid.*, pp. 48-49). In Temporary National Emergency Commission Monograph No. 29, *Distribution of Ownership in the 200 Largest Nonfinancial Corporations* (p. XVII), it is estimated that probably 8 to 9 million Americans own corporate stock.

⁷ The number of families and single individuals in 1935-36 is taken from the National Resources Committee, *Consumer Expenditures in the United States*, Washington, 1939, p. 1.

actually the degree of concentration of ownership in this important segment of the national economy is far greater than these figures would indicate.

Dividend Payments.

Concentration of dividend payments furnishes one clue to the concentration of stockholdings. Table 13 summarizes the dividend receipts, by type of receiver, for the years 1927 and 1930. From this table it is clear that in these years individuals received about two-thirds of the dividends paid and hence that they probably owned about two-thirds of the total stocks of these corporations.

The financial corporations accounted for the larger share of the dividends received by corporations. These financial corporations include banks, insurance and real estate companies, holding companies, and investment trusts. Banks and life-insurance companies were the most important owners of bonds, but the major institutional holders of stocks were investment trusts and holding companies.⁸

An analysis of dividend receipts by individuals reveals how small a number of individuals own the great bulk of corporate stock. In a monograph prepared for the Temporary National Economic Committee, Martin Taitel has analyzed the income tax data and the net dividend outgo of the corporate system over a period of years.⁹ He points out that between 1916 and 1937 income tax payers received 70 percent or more of the net dividend outgo of the corporate system. In 1937, 1,694,000 persons, or about 27 percent of those submitting tax returns, received all the dividend payments reported.¹⁰ The concentration of dividend income is indicated by the fact that only one family in six pays income taxes, and only one out of four of those paying income taxes receives any dividends.

A further analysis of income tax returns for persons with net incomes over \$5,000 showed that this group has received 55 percent or more of the net dividend outgo of the corporate system. Only 60 percent of this group, which has never numbered much over a million, has reported dividend receipts. Hence, over half the dividends have gone to not more than 2 percent of the total number of families and single individuals in the Nation.¹¹ Moreover, the 25,000 taxpayers reporting the greatest amounts of dividend receipts, representing less than one-tenth of 1 percent of all families and single individuals, received dividend payments from 1929 to 1937 which accounted for, roughly, 35 percent of the net dividend outgo of all corporations.¹²

Taitel concluded that most of the dividends have been received in relatively large amounts by a small section of the population, while

⁸ *Ibid.*, p. 60.

A study made by the Federal Trade Commission indicates that in 1922 individuals held around 65 percent of the value of the preferred and common stock of the 4,367 corporations studied. Corporations of all kinds owned 10 percent of the stock. (Federal Trade Commission, *National Wealth and Income*, Washington, p. 150.)

⁹ Temporary National Economic Committee Monograph No. 12, *Profits, Productive Activities and New Investment*.

¹⁰ *Ibid.*, p. 47. The author also cites a special tabulation made in U. S. Treasury Department, *Statistics of Income, 1928*, pp. 11-12, which showed that 792,000 returns, or less than 20 percent of the total tax returns for 1928, reported all but 3.4 percent of the dividend receipts reported in that year.

¹¹ *Ibid.*, p. 49.

¹² *Ibid.*, p. 50, especially table IX.

the remainder went in relatively small amounts to a much larger section of the population. He summarized his findings as follows:

(1) Less than 0.1 percent of the families and single individuals received 40 percent of the dividends.

(2) Less than 1 percent received another 20 percent of the dividends.

(3) Less than 2 percent received still another 20 percent of the dividends.

(4) The remaining 96 percent or more of the families and single individuals got the last 20 percent of the dividends, but most of these people received no dividends.¹³

The Securities and Exchange Commission study on distribution of stock ownership estimates that there is an even greater concentration of corporate ownership. According to this study, the 10,000 persons with the highest dividend incomes in 1937 owned about one-fourth of all stock of American corporations. Less than 75,000 persons, or less than 1 percent of all stockholders, and considerably less than one-fifth of 1 percent of all income recipients, accounted for fully one-half of all corporate stock owned by individuals.¹⁴

Dividend Payments by Income Levels.

Concentration of ownership of corporations within the comparatively small group of individuals which receives the bulk of dividends is shown by an analysis of dividend distribution by income levels of the recipients. Although it is not possible to determine how all dividends are distributed by income level, Taitel obtained approximations for most of the dividends from income tax data. His tabulation for 7 selected years between 1920 and 1937 is reproduced in table 14.

TABLE 14.—*Dividend receipts classified by the income level of the recipients, selected years 1920-37*

Year	Net dividend outgo of the corporate system	Unclassified ¹	Income level in thousands of 1935-36 dollars				
			Total, 5 and over	5-10	10-15	15-20	20 and over
	Amount in millions of current dollars						
1937 ²	4, 832	2, 008	2, 824	466	301	231	1, 826
1936 ²	4, 702	2, 092	2, 610	425	258	211	1, 716
1935	2, 927	1, 079	1, 848	274	197	148	1, 229
1932	2, 626	1, 010	1, 616	246	195	136	1, 039
1929	5, 927	1, 720	4, 207	572	426	334	2, 875
1925	4, 014	1, 014	3, 000	400	329	263	2, 008
1920	2, 900	670	2, 230	400	268	202	1, 360

See footnotes at end of table.

¹³ Ibid., p. 50.

Taitel points out, further, that the degree of concentration of dividend income is far higher than the degree of concentration of total income receipts of individuals. In 1935-36 (according to National Resources Committee, Consumer Incomes in the United States, p. 6), 0.1 percent of all families and single individuals received about 5 percent of consumer income; but a much smaller number of families and single individuals received around 35 percent of all dividends. Moreover, in this same year, 60 percent of the dividends were received in amounts averaging \$6,000, whereas about 60 percent of the consumer income was received in amounts averaging about \$2,800. There is a vastly greater concentration in receipts of dividends than in receipts of wages. In 1929 the 150,000 income taxpayers receiving the greatest amounts of wages received about 5 percent of the total employees' compensation, while the same number of dividend recipients got 60 percent of the dividends. (Ibid., pp. 51-52.)

Taitel concludes that the concentration of dividend income accounts for a great part of the wide spread between the incomes of individuals. "For example, the major share of the difference between the average \$50,000 income and the average \$1,000,000 income is due to the difference between the average amount of dividends included in those incomes." (Ibid., p. 52.)

¹⁴ Temporary National Economic Committee Monograph No. 29, Distribution of Ownership in the 200 Largest Nonfinancial Corporations, p. 13. See also Temporary National Economic Committee Monograph No. 4, Concentration and Composition of Individual Incomes, 1918-37, especially ch. II.

TABLE 14.—*Dividend receipts classified by the income level of the recipients, selected years 1920-37—Continued*

Year	Net dividend outgo of the corporate system	Unclassified ¹	Income level in thousands of 1935-36 dollars				
			Total, 5 and over	5-10	10-15	15-20	20 and over
Percent of net dividend outgo							
1937 ²	100.0	41.6	58.4	9.6	6.2	4.8	37.8
1936 ²	100.0	44.5	55.5	9.0	5.5	4.5	36.5
1935	100.0	36.8	63.2	9.4	6.7	5.1	42.0
1932	100.0	38.5	61.5	9.4	7.4	5.2	39.5
1929	100.0	29.0	71.0	9.7	7.2	5.6	48.5
1925	100.0	25.3	74.7	9.9	8.2	6.6	50.0
1920	100.0	23.1	76.9	13.8	9.2	7.0	46.9
Percent of dividend receipts reported by income tax payers with incomes of 5,000 or more 1935-36 dollars							
1937 ²			100.0	16.5	10.7	8.2	64.6
1936 ²			100.0	16.3	9.9	8.1	65.7
1935			100.0	14.8	10.7	8.0	66.5
1932			100.0	15.2	12.1	8.4	64.3
1929			100.0	13.6	10.1	7.9	68.4
1925			100.0	13.3	11.0	8.8	66.9
1920			100.0	17.9	12.0	9.1	61.0

¹ Includes dividends not reported as dividends by income tax payers.

² Tabulating procedure for individual tax returns changed in 1936. See Temporary National Economic Committee Monograph No. 12, appendix I, sec. E.

Source: Temporary National Economic Committee Monograph No. 12, Profits, Productive Activities and New Investment, p. 58.

This table reveals that individuals with incomes over \$20,000 (exclusive of capital gains and losses) have collected between 40 and 50 percent of all dividends.¹⁵

An even more vivid picture of the concentration of ownership of corporations within the upper income levels is shown by an analysis of 1937 income and estate tax data, which presents both percentages and average amounts of dividends received by income levels and of stock held by estate classes. In 1937 the Treasury Department's Statistics of Income included for the first time estimates of the total number of taxpayers reporting dividend income. Table 15 presents an analysis of the figures for that year.

¹⁵ Temporary National Economic Committee Monograph No. 12, p. 58. The figures in the table under "Unclassified" included dividends received by individuals estimated to fall below the \$5,000 level, and dividends received by (a) nonprofit institutions and other corporations not required to file tax returns; (b) by income taxpayers estimated to fall above \$5,000, but not reported as such; and (c) by nonincome taxpayers falling above the \$5,000 level.

TABLE 15.—*Individuals reporting income from dividends on stock of domestic and foreign corporations and the amount of dividends received, 1937*¹

Net income classes	Returns			Dividends			Average amount of dividends received
	Number	Percent of total	Cumulative percentages	Amount (thousands)	Percent of total	Cumulative percentages	
Under \$5,000 (estimated).....	1, 246, 946	73. 6	100. 0	\$733, 764	20. 8	100. 0	\$588
\$5,000 and under \$10,000.....	261, 469	15. 4	26. 4	479, 600	13. 6	79. 2	1, 834
\$10,000 and under \$25,000.....	135, 979	8. 0	11. 0	721, 875	20. 5	65. 6	5, 309
\$25,000 and under \$50,000.....	34, 361	2. 0	3. 0	540, 050	15. 4	45. 1	15, 717
\$50,000 and under \$100,000.....	11, 534	. 7	1. 0	434, 567	12. 4	29. 7	37, 677
\$100,000 and under \$150,000.....	2, 185	. 1	. 3	164, 243	4. 7	17. 3	75, 168
\$150,000 and under \$300,000.....	1, 304	. 1	. 2	186, 359	5. 3	12. 6	142, 913
\$300,000 and under \$500,000.....	301	(2)	-----	90, 506	2. 6	7. 3	300, 684
\$500,000 and under \$1,000,000.....	155	(2)	. 1	96, 833	2. 8	4. 7	624, 729
\$1,000,000 and over.....	47	(2)	-----	66, 497	1. 9	1. 9	1, 414, 830
Total.....	1, 694, 281	100. 0	-----	3, 514, 293	100. 0	-----	-----

¹ Excludes dividend income received from partnerships and fiduciaries.² Less than 0.05 percent.

Source: Statistics of Income, 1936, pt. I, p. 11; 1937, p. 13.

While 74 percent of the taxpayers—those in the under \$5,000 class—received only 21 percent of the dividends, the remaining 26 percent received 79 percent of the dividends. Eleven percent of the individuals reporting received about two-thirds of the dividends. Out of a population of 29,000,000 families and 10,000,000 single individuals, 136,000 persons got two-thirds of the dividends paid by American corporations to individuals, and 34,000 persons got 45 percent of the dividends.

The average amount of dividends received by each taxpayer increased steadily with increase in income class. Taxpayers in the class under \$5,000 received an average of \$588 in dividends, while the 47 multi-millionaires received an average of \$1,414,830.

Information on the value of corporation stock held by the wealthy can also be obtained from estate tax returns. Table 16 analyzes these data for 1937, by estate classes. This tabulation reveals that 64 percent of the reporting estates owned only 16 percent of the corporation stock reported, and that the remaining 36 percent of the estates owned 84 percent of the stock. Less than 5 percent of the estates possessed over 50 percent of the stock. There is also a steady increase in the average amount of stock held in the different estate classes which reaches a maximum of \$5,599 million for the seven estates in the \$10,000,000 and over class.¹⁶

¹⁶ See also W. L. Crum, *The Distribution of Wealth*, Harvard Bureau of Business Research, Cambridge, 1935, p. 19. His analysis of average holdings of certain types of securities for estates of different sizes led him to conclude: "Corporation stock constitutes a very large portion of the total gross estate for the high classes, but much less for the low. The rough generalization is warranted that the very great estates are predominately holdings of corporation stock." See also hearings before the Special Senate Committee on Taxation of Governmental Securities and Salaries, pursuant to S. Res. 303 (75th Cong.), 76th Cong., 1st sess., p. 117.

TABLE 16.—*Distribution of ownership of corporation stock by individuals in various net estate classes*

Net estate classes ¹	Total estates			Corporation stock			Average value of stock held by estate
	Number	Percent of total	Cumulative per cent-ages	Value (thousands)	Percent of total	Cumulative per cent-ages	
Under \$100,000.....	8,462	64.0	100.0	\$195,303	16.0	100.0	\$23,080
\$100,000 and under \$500,000.....	4,105	31.1	36.0	404,203	33.2	84.0	98,466
\$500,000 and under \$1,000,000.....	384	2.9	4.9	162,899	13.4	50.8	424,216
\$1,000,000 and under \$2,500,000.....	202	1.5	2.0	204,925	16.8	37.4	1,014,480
\$2,500,000 and under \$5,000,000.....	43	.3	.5	133,777	11.0	20.6	3,111,093
\$5,000,000 and under \$10,000,000.....	17	.1	.2	78,069	6.4	9.6	4,592,294
\$10,000,000 and over.....	7	.1	.1	39,195	3.2	3.2	5,599,286
Total.....	13,220	100.0	-----	1,218,372	100.0	-----	-----

¹ Based on estate tax returns filed during the calendar year 1938. See Statistics of Income for 1937, pp. 54-61.

CONCENTRATION OF OWNERSHIP OF THE LARGE CORPORATIONS

The material already summarized makes it clear that the relatively few wealthy own the American corporations. However, an even more significant point appears in connection with the ownership of the big corporations.

Position of Large Corporations in the Economy.

The bulk of corporate wealth and income are located in a comparatively small number of big corporations. Summaries of corporate income tax returns for 1937 show that the 394 largest corporations—nine-hundredths of 1 percent of the total number reporting—owned about 45 percent of the total corporate assets. On the other hand, the 228,721 corporations with average total assets of less than \$50,000 comprised 55 percent of the number, but owned only 1.4 percent of the total assets of reporting corporations.

The distribution of net income also is highly concentrated. In the first place, 285,810 corporations reported no net income in 1937, while 192,028 corporations reported net incomes. Of these latter corporations only 248—one-tenth of 1 percent of them—had net incomes of \$5 million and over, but this group received 40 percent of the total net income of all income-reporting corporations. At the lower end of the scale 65 percent of the profitable corporations—each with a net income below \$5,000—received 1.7 percent of the total net income.¹⁷

A similar concentration of net income received is shown by examination of a representative group of large corporations over a period of years. Standard Statistics presents a composite income account for two groups of selected corporations over the last decade. They have included the same companies throughout the entire period. Tables 17 and 18 compare the net income receipts of these two groups with those of all corporations reporting to the Bureau of Internal Revenue.

¹⁷ U. S. Treasury Department, Statistics of Income, 1937, Part II, pp. 9, 26-27.

TABLE 17.—*Net income of 951 leading nonfinancial corporations compared with that of all corporations, 1926-37*

[In millions of dollars]

Year	Net income received by all corporations after taxes but before intercorporate dividends ¹	Net income received by 951 largest nonfinancial corporations before intercorporate dividends ²	
		Amount	Percentage of total received by all corporations
1937	6,554	3,243.3	49.5
1936	6,580	3,040.7	46.2
1935	4,688	1,996.9	42.6
1934	2,374	1,442.2	60.8
1933	-1,353	1,091.7	-80.7
1932	-4,115	374.6	-9.1
1931	-1,176	1,401.8	-119.2
1930	3,937	2,954.6	75.1
1929	10,677	4,813.3	45.1
1928	9,483	4,124.6	43.5
1927	7,538	3,326.7	44.1
1926	8,280	3,700.1	44.7

¹ U. S. Treasury Department, Bureau of Internal Revenue, Statistics of Income, annual volumes.² Standard Statistics Co., Standard Trade and Securities, Statistical Section, vol. 93, No. 16, sec. 2.

For other sources and details as to methods, see Temporary National Economic Committee Monograph No. 12, appendix I, pp. 143-144.

TABLE 18.—*Net income of 463 leading nonfinancial corporations compared with that of all corporations, 1927-37*

[In millions of dollars]

Year	Net income received by all corporations after taxes but before intercorporate dividends ¹	Net income received by 463 largest nonfinancial corporations before intercorporate dividends ²	
		Amount	Percentage of total received by all corporations
1937	6,554	2,750	42.0
1936	6,580	2,554	38.8
1935	4,688	1,674	35.7
1934	2,374	1,150	48.4
1933	-1,353	852	-63.0
1932	-4,115	227	-5.5
1931	-1,176	1,081	-91.9
1930	3,937	2,558	65.0
1929	10,677	4,158	38.9
1928	9,483	3,587	37.8
1927	7,538	2,800	37.2

¹ U. S. Treasury Department, Bureau of Internal Revenue, Statistics of Income, annual volumes.² Standard Statistics Co., Standard Trade and Securities, Statistical Section, vol. 93, No. 16, sec. 2.

For other sources and details as to methods, see Temporary National Economic Committee Monograph No. 12, appendix I, pp. 143-144.

These tables reveal that 951 leading nonfinancial corporations received almost 50 percent of the total net income for all corporations in 1937, and that 463 large corporations received 42 percent of the income. In the depression years from 1931 through 1933, when most corpora-

tions were reporting deficits, these leading corporations were continuing to make profits. In the period when there was an aggregate net income for all corporations, the 951 corporations received 75 percent in the best year and, in the worst, 43 percent of all the corporate income reported. The 463 leading corporations received, in these same years, 65 percent and 36 percent, respectively.

The pattern of concentration is shown, again, in the study made by the Securities and Exchange Commission. This study estimates that the 200 largest nonfinancial corporations paid out dividends of a little over \$2,000,000,000 in 1937, which was around 40 percent of the dividends paid out by all domestic corporations in that year, and somewhat less than 45 percent of the dividends paid out by all nonfinancial corporations.¹⁸

Ownership of the Large Corporations.

Since it is clear that the very wealthy receive the bulk of the dividends, and that the big corporations have the big dividends to pay, it follows that the wealthy own a large proportion of the stock of the big corporations.¹⁹ In view of the importance of these large corporations in the economic scene, concentration of ownership here has significant implications for the system as a whole. It is true that corporations can be, and often are, controlled and directed by others than their owners.²⁰ Nevertheless, ownership of a majority or of a fairly substantial minority of the stock of a corporation is one of the most important and one of the surest means of exerting control.

Through the researches of the Temporary National Economic Committee, more data are available than there were previously on the concentration of ownership among the largest corporations, although a great deal of work remains to be done in the field.

Some indication of concentration of ownership of the large oil companies is given in the testimony presented to the Committee in the hearings on the petroleum industry (Parts 14, 14-A, 15, 15-A, 16, 17, 17-A). Table 19 gives the amount and percentage of common stock held by the hundred largest stockholders in each of 18 oil companies. Although this table reveals a wide variation between corporations in the amount of concentration of ownership among the 100 largest stockholders, casual inspection indicates that at least one-third of the corporate stock was held by 100 individuals in over two-thirds of the corporations examined. The fact that in 3 of the 18 corporations over 80 percent of the stock was held by 100 stockholders is also enlightening.

¹⁸ Exclusive of intercorporate dividends. (Temporary National Economic Committee Monograph No. 29, pp. 22, 23.)

¹⁹ See also E. D. Kennedy, *Dividends to Pay*, Reynal & Hitchcock, New York, 1939, pp. 54-55. "Small and medium sized companies do not pay the kind of dividends that these people collect. They buy into the big corporations. They center their investments in * * * the small group of heavily capitalized companies * * * as the only portion of American industry that, as a group, consistently makes money year after year. Since these 17,088 persons get one-third of the dividends of industry, it follows that they own one-third of industry. But as their ownership is concentrated in the big companies, they must own very much more than one-third of those key concerns."

²⁰ For a discussion of this point, see Berle and Means, *op. cit.*

TABLE 19.—*Shares of common stock held by the 100 largest stockholders of the major oil companies, Dec. 31, 1938*

Name of company	Total number of common stock-holders	Total common shares out-standing	Shares held by 100 largest stock-holders	Percentage of shares held by 100
Shell Union Oil Corporation	17,393	13,070,625	11,624,611	88.9
Sun Oil Co.	5,226	2,316,484	1,966,808	84.9
Skelly Oil Co.	3,152	995,349	817,245	82.1
Standard Oil Co. (Ohio)	3,532	753,740	521,166	69.1
Tide Water Association Oil Co.	24,116	6,375,253	4,066,873	63.7
Gulf Oil Corporation of Pennsylvania	15,135	13,751,846	7,430,934	54.0
Standard Oil Co. (New Jersey)	126,383	26,618,065	12,582,063	47.3
Ohio Oil Co.	31,287	6,563,377	2,955,244	45.0
Socony-Vacuum Oil Co.	113,240	31,206,071	12,803,585	41.0
Continental Oil Co.	29,969	4,738,593	1,688,030	35.6
Consolidated Oil Corporation	89,068	13,751,846	4,801,289	34.9
Standard Oil Co. (Indiana)	99,665	15,272,020	5,267,862	34.5
Pure Oil Co.	29,033	3,982,031	1,359,356	34.1
Phillips Petroleum Co.	40,105	4,449,052	1,355,054	30.4
Union Oil Co. of California	26,524	4,666,270	(1)	28.1
Texas Corporation	86,380	10,876,882	2,605,090	24.0
Atlantic Refining Co.	29,313	2,663,999	633,271	23.8
Cities Service Co.	466,658	3,704,067	776,599	21.0

¹ Figure not available, as company reported percentage only.

Source: Hearings before the Temporary National Economic Committee, Part 14-A, p. 7713. Standard Oil Co. of California and Mid-Continent Petroleum Corporation did not answer the questionnaire.

The most detailed study available of the distribution of stock ownership of corporations is the Securities and Exchange Commission study already referred to (T. N. E. C. Monograph No. 29). This study analyzed the distribution of the stock outstanding of the 200 largest nonfinancial corporations—each with balance sheet assets of over \$60,000,000 at the end of 1937—by the estimated market value of individual shareholdings.²¹ Four million, or nearly one-half of the 8,500,000 combined common and preferred record shareholdings in the 200 corporations, each had a value of \$500 or less, but in total accounted for only 3 percent of the value of all outstanding shares of these corporations. On the other hand, only 415,000 shareholdings were valued at over \$10,000 each, yet these comprise about 70 percent of the value of the total stock outstanding in the 200 corporations.²²

Concentration of ownership of voting stock is of significance not only because of the aggregates of wealth concentrated in the hands of a small group but because of the possibility of concentration of power. The same study revealed that the 20 largest shareholdings in each of the 200 corporations studied accounted, on the average, for nearly one-third of the total value of all outstanding stock. It is even more significant that in about two-fifths of these corporations one family or a small number of families owned blocks of stock large enough to permit either absolute control through ownership of a majority of the voting stock or working control through minority ownership.²³ Over 8 percent of the total equity securities of these 200 largest corporations were held by 13 family groups, the poorest of whom owned shares in these corporations valued at over \$50,000,000 at the end of 1937. The aggregate value of the shareholdings of the 13 families in these cor-

²¹ "Individual" shareholdings include holdings by institutions as well as by persons.

²² Temporary National Economic Committee Monograph No. 29, p. XVII; also see appendix IV, table 72.

²³ Ibid., p. XVI; see also ch. V and ch. VI.

porations was \$2,700,000,000. The families with these stockholdings are listed in table 20.

Family Holdings.

Four great pools of wealth stand out in this group of 13 families: The Ford family with holdings estimated at \$625,000,000, the Du Ponts with \$574,000,000, the Rockefellers with \$397,000,000, and the Mellons with \$391,000,000. Moreover, it should be noted that these sums comprised only their holdings in the 200 largest nonfinancial corporations, insofar as these were identified among the 20 largest record shareholdings. They give no clue to any smaller holdings in the 200 corporations nor to any holdings outside these corporations. Nor was any attempt made to estimate the aggregate wealth of any of these families nor to estimate what proportion of their wealth was invested in equity securities. Even this partial report indicates that the concentration of wealth is startling.

TABLE 20.—*Identified stockholdings in 200 largest nonfinancial corporations of 13 family interest groups with holdings of over \$50,000,000*

[Value of holdings¹ in thousands of dollars]

Family	Total	Common stock	Preferred stock	Corporations in which main holdings are—
1. Ford.....	\$ 624, 975	624, 975	-----	Ford Motor Co.
2. DuPont.....	573, 690	562, 650	11, 040	E. I. du Pont de Nemours & Co.; United States Rubber Co.
3. Rockefeller....	\$ 396, 583	371, 777	24, 806	Standard Oil Co. (New Jersey, Indiana, and California); Socony-Vacuum Oil Co., Inc.
4. Mellon.....	\$ 390, 943	350, 801	40, 142	Gulf Oil Corporation; Aluminum Co. of America; Koppers United Co.
5. McCormick....	111, 102	84, 854	26, 248	International Harvester Co.
6. Harford.....	105, 702	86, 331	19, 371	Great Atlantic & Pacific Tea Co., of America.
7. Harkness.....	\$ 104, 891	100, 054	4, 837	Standard Oil Co. (New Jersey, Indiana, and California); Socony-Vacuum Oil.
8. Duke.....	\$ 89, 459	77, 465	11, 994	Duke Power Co.; Aluminum Co. of America; Liggett & Myers Tobacco.
9. Pew.....	75, 628	75, 555	73	Sun Oil Co.
10. Pitcairn.....	65, 576	64, 981	595	Pittsburgh Plate Glass Co.
11. Clark.....	57, 215	57, 215	-----	Singer Manufacturing Co.
12. Reynolds.....	54, 766	54, 766	-----	R. J. Reynolds Tobacco Co.
13. Kress.....	\$ 50, 044	43, 098	6, 946	S. H. Kress & Co.
Total.....	2, 700, 574	-----	-----	

¹ Includes only holdings of family members and family endowed foundations in stock of 200 largest nonfinancial corporations insofar as they were identified among 20 largest record shareholdings. Values represent in most cases market values as of Dec. 31, 1937; otherwise (particularly for Ford) book values.

² Includes \$45,250 of common stock and \$18,697 of preferred stock held by family endowed foundations.

³ Includes \$93,768 of common stock and \$11,900 of preferred stock held by family endowed foundations.

⁴ Includes \$26,114 of common stock and \$4,087 of preferred stock held by family endowed foundations.

⁵ Includes \$8,779 of common stock and \$10,915 of preferred stock held by family endowed foundations.

⁶ Includes \$31,773 of common stock and \$10,915 of preferred stock held by family endowed foundations.

⁷ Includes \$3,477 of common stock and \$595 of preferred stock held by family endowed foundations.

Source: Temporary National Economic Committee Monograph No. 29, table 6, p. 116.

In terms of industrial empires controlled, three families—the Du Ponts, Rockefellers, and Mellons—dominate the corporate scene. Their equity holdings in the 200 corporations were valued at the end of 1937 at nearly \$1,400 million (see Table 9). This was about 4 percent of the value of the equity securities of the 200 corporations and about 14 percent of the value of the equity holdings of the 20 largest holders of record in these corporations.²⁴ Directly or indirectly, these 3 families controlled 15 of the 200 corporations, whose aggregate assets included more than 11 percent of the total assets of the 200 corpora-

²⁴ Ibid., ch. VII.

tions.²⁵ And it should be noted that these great accumulations of wealth which permit control of large corporations may contribute to a further increase in the concentration of wealth and of economic power, since a wealthy family not only can afford to allow a corporation which it controls to use corporate earnings to buy stock in other corporations instead of paying dividends to stockholders but frequently finds it advantageous to do so. These investments by the corporation add to the value of the corporate stock, but the small stockholder may be obliged, in the absence of dividends, to sell his stock.

²⁵ *Ibid.*, p. XVI.

CHAPTER VIII

CONCENTRATION OF OWNERSHIP¹

Information concerning the ownership of wealth is important for a study of the concentration of economic power, since wealth is a source of power, and if wealth is concentrated in the hands of a few, then economic power is likely to be concentrated in a similar fashion. Ownership of a natural resource, for example, provides an obvious basis for monopoly. Whether ownership of wealth is, in fact, more important as a source of power than various methods of control which are exerted even without ownership, it is not the province of this chapter to decide. Here, the material on ownership is examined in an attempt to discover how the Nation's wealth is distributed.

Unfortunately, there is little precise information on the ownership distribution of wealth.² Estimates of the total amount of the national wealth vary widely and are of doubtful significance. It is not possible, therefore, to proceed by ascertaining the ownership of a known aggregate of wealth. Nor is it possible to add together the separate segments of wealth concerning which there is some information. Too little is known about the ownership of many of the components of the national wealth, and these components involve duplications. Some of the material is concerned with capital goods, and some with claims to capital goods, as, for example, the farm, and the mortgage on the farm. Another complication lies in the fact that the values placed upon wealth are based upon guesses as to what will happen in the future, and the guesses are subject to change with time. Unfortunately, the information on the ownership of various forms of wealth refers to different periods of time.

The material presented is necessarily, then, a collection of samples which gives an incomplete picture, but this cannot obscure the fact that great aggregates of wealth are concentrated in the hands of a relatively few individuals. And some conclusion as to the degree of concentration can be drawn from the available material.

Lack of time and means for original research has caused this chapter to be, in the main, a compilation and exposition of existing material. The available information is presented in the following sections: Savings, debt, real estate, and homes. The amount of space devoted to the different sections reflects in general the availability of information rather than order of importance.

There is considerable material on the intermediary holdings of such institutional owners as banks, life insurance companies, and nonfinancial corporations. It should be noted that institutional ownership of

¹ This chapter was written by Dr. Eleanor Poland, economist of the Temporary National Economic Committee staff. Some of the data were taken from Temporary National Economic Committee Monographs No. 4, Concentration and Composition of Individual Incomes 1918-1937, and No. 37, Saving, Investment, and National Income. The chapter was reviewed by Dr. Dewey Anderson, executive secretary, Temporary National Economic Committee; Dr. Maurice Leven, formerly of the Brookings Institution; and Dr. Oscar Altman, senior economist, National Resources Planning Board, Washington, D. C.

² It should be noted that distribution of wealth differs from distribution of income primarily because the latter includes work income as well as property income and because some kinds of property yield higher returns than others. See Temporary National Economic Committee Monograph No. 4, Concentration and Composition of Individual Incomes, 1918-1937, by Adolph Goldenthal.

wealth is a significant aspect of the concentration of economic power, since the control of such wealth may be in the hands of a small number of individuals. Information on direct ownership by individuals is presented through income tax and estate tax data. The estate tax material gives a picture of the accumulated wealth in an individual's hands, while the income tax data shows the annual receipts from various types of property.

Much of the detailed material in the chapter deals with the ownership of wealth in income classes of \$1,000 and above and in estate classes of \$5,000 and above. It has been presented not only because, in most cases, it is the only available statistical material on ownership distribution of wealth but also because the extent of concentration within this group is of interest. Concentration within this group varies among the different fields considered. Yet any comments to this effect should not distract attention from the basic fact of great concentration of ownership, since only about 6,000,000 individuals out of a population of over 130,000,000, or less than 15 percent of the 29,000,000 income-receiving families and 10,000,000 income-receiving individuals, make income tax returns.³

There is a tendency, in discussing incomes ranging from \$5,000 to \$1,000,000, to consider those people in the lower brackets as poor. And relative to the millionaires, they are poor. But compared with the two-thirds of the Nation receiving less than \$1,500, they are rich. To avoid confusion, therefore, throughout this chapter the people receiving annually less than \$1,000 are referred to as the "poor" or as the "low-income groups"; the people receiving from \$1,000 to \$5,000 are referred to as the "middle class" or the "middle-income groups," and those receiving \$5,000 and more are called "the wealthy" or the "upper or high-income groups." Within this last class some comparison is possible by the use of the terms "the moderately wealthy" and "the extremely wealthy."

OWNERSHIP OF SAVINGS

The first material presented here concerns the amounts saved annually by different income groups, since there is little information available concerning the ownership distribution of the accumulated reservoir of savings. Such data indicate the process of accumulation, because they represent periodic additions to the reservoir of savings. If the annual additions are not evenly distributed among the members of the population, it is probable that the ownership of the accumulated savings will also be unevenly distributed.

Saving is done by individuals, by business, and by government. One estimate of the amounts saved by each group from 1933 to 1937 is given in table 21. Clearly individuals do by far the largest amount of saving, although the business depression existing in these years probably accentuates the difference between individual and business savings. Since the saving done by government is measured by the difference between current receipts and current expenditures, and since government receipts depend on taxation, a discussion of the ownership of government saving would involve a study of the incidence of taxation, which is beyond the province of this chapter.⁴

³ U. S. Treasury Department, *Statistics of Income, 1937*, pt. 1, p. 8, and National Resources Committee, *Consumer Incomes in the United States, 1935-36*, Washington, 1938.

⁴ See ch. XVI and Temporary National Economic Committee Monographs No. 3, *Who Pays the Taxes?*, and No. 20, *Taxation, Recovery, and Defense*, for discussion of this point.

TABLE 21.—*Net savings in the United States, 1933-37*¹

[Billions of dollars]

	1933	1934	1935	1936	1937	1933-37
Individual saving—						
In liquid form:						
Currency and deposits.....	-1.2	+2.5	+2.6	+3.9	+0.5	+8.3
Building and loan associations.....	-0.6	-0.3	-0.4	-0.2	-0.1	-1.6
Insurance and pension reserves.....	+0.5	+1.4	+1.9	+2.7	+2.9	+9.4
Through absorption of securities.....	+0.5	-1.0	-2.3	+0.1	+0.6	-2.1
In durable consumers' goods:						
Nonfarm dwellings.....	-0.3	-1.7	-0.8	0.0	-0.2	-3.0
Automobiles.....	-0.7	-0.4	+0.2	+0.3	+0.7	+0.1
Other.....	-1.0	-0.5	-0.3	+0.6	+1.0	-0.2
Total.....	-2.8	0.0	+0.9	+7.4	+5.4	+10.9
Business saving:						
Agriculture.....	-0.2	-0.4	-0.1	+0.2	+0.2	-0.3
Corporate.....	-3.1	-2.5	-1.5	-1.2	-0.9	-9.2
Government saving:						
State and local.....	+0.5	+0.5	+0.6	+1.1	+1.4	+4.1
Federal.....	-0.5	-2.0	-2.0	-2.8	-0.5	-7.8
Total national saving.....	-6.1	-4.4	-2.1	+4.7	+5.6	-2.3

¹ Net saving is considered as that part of the national income of residents of the United States earned during any year that is not spent during the same year on consumption goods and services. Gross saving is net saving plus depreciation allowances. These are the definitions used by R. W. Goldsmith in "The Volume and Components of Savings in the United States, 1933-37," Studies in Income and Wealth, National Bureau of Economic Research, New York, 1939, vol. III, p. 220.

Source: National Bureau of Economic Research, Studies in Income and Wealth, vol. III, New York, 1939, p. 227.

Individual Savings.

There have been a number of estimates of the extent of annual savings by individuals. Lough, using overall statistics, estimates the savings of individuals for 1929 to be 9.3 billion dollars; while a Brookings Institution study, deriving its estimates from sample family budgets, estimates the figure at 17.8 billion dollars.⁵ The National Resources Committee report, *Consumer Expenditures in the United States*, estimated from sample consumer data that the savings of individuals for the year 1935-36 were 6 billion dollars, or 10.1 percent of income, while the Brookings figure for 1929 represented 19.1 percent of income. Even when allowance is made for the 6.2 billion dollars of capital gains included by Brookings in the savings total, their estimate of savings for 1929 is almost twice as large as that of the National Resources Committee for 1935-36.⁶

Probably the most important clues to concentration of ownership in savings come from estimates concerning the savings of families by income groups. The National Resources Committee study provides the most comprehensive and detailed study of this kind. It presents estimates of the average patterns of consumer spending at different levels of income for the population of the United States in 1935-36.

⁵ W. H. Lough and M. R. Gainsbrugh, *High-Level Consumption*, McGraw-Hill, New York, 1935, pp. 284-5; M. Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to Consume*, Brookings Institution, Washington, 1934, pp. 260, 261, 265. Lough excludes capital gains, while the Brookings study includes 6.2 billion dollars of capital gains.

For a description and comparison of the two methods used in these studies, see Lough, pp. 320-324. For a further discussion of the Brookings estimate for savings and for a calculation of the trend of savings, see Clark Warburton, "The Trend of Savings, 1900-1929," *Journal of Political Economy*, vol. 43, 1935, pp. 84-101.

⁶ The general similarity between the patterns of saving at different income levels in both studies suggests that the difference in the national aggregates of savings must be due in large part to the differences in the number of families at the higher income levels. National Resources Committee, *Consumer Expenditures in the United States*, Washington, 1939, pp. 68-70.

Table 22 presents the general picture of income and savings of American consumers.⁷

The authors of the study state that, although the sample data were more adequate than any previously available, the number of high-income families included in the survey was very small, and it was necessary, in estimating savings for incomes of \$20,000 and over, "to rely almost entirely" on extrapolations based on data from the lower-income groups. Even allowing for some error here, however, it is obvious that the high-income classes accumulate most of the savings of American families. Table 22 reveals that 59 percent of the consumer units, those with incomes below \$1,250, incurred large net deficits instead of accumulating savings; that is, their expenditures for consumption were greater than their income in that year. On the other hand, 41 percent of the consumer units, those with incomes above \$1,250, saved \$7,511,000,000.

TABLE 22.—Aggregate savings of American consumers by income level, 1935-36

Income level	Families and single individuals ¹		Aggregate income		Aggregate savings	
	Number	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Under \$500	6,710,911	17.0	2,061	3.5	-800	-13.4
\$500-\$750	5,771,960	14.6	3,615	6.1	-382	-6.4
\$750-\$1,000	5,876,078	14.9	5,130	8.6	-254	-4.3
\$1,000-\$1,250	4,990,995	12.7	5,589	9.4	-97	-1.6
\$1,250-\$1,500	3,743,428	9.5	5,109	8.6	95	1.6
\$1,500-\$1,750	2,889,904	7.3	4,661	7.9	196	3.3
\$1,750-\$2,000	2,296,022	5.8	4,214	7.1	245	4.1
\$2,000-\$2,500	2,958,611	7.5	6,572	11.1	587	9.8
\$2,500-\$3,000	1,475,474	3.7	4,005	6.8	482	8.1
\$3,000-\$4,000	1,354,078	3.4	4,589	7.8	742	12.4
\$4,000-\$5,000	464,191	1.2	2,045	3.4	434	7.2
\$5,000-\$10,000	595,908	1.5	4,092	6.9	1,218	20.4
\$10,000-\$15,000	152,682	.4	1,747	3.0	679	11.4
\$15,000-\$20,000	67,923	.2	1,175	2.0	473	7.9
\$20,000 and over	110,135	.3	4,645	7.8	2,360	39.5
All levels	39,458,300	100.0	59,259	100.0	5,978	100.0

¹ Includes all families and single individuals, but excludes residents in institutional groups.

Source: National Resources Committee, Consumer Expenditures in the United States, Washington 1939, p. 48.

The National Resources Committee study further records the net savings for each tenth and for each third of the Nation. Those in the poorest six-tenths had net negative savings or deficits, aggregating \$1,523,000,000. Those in the next three-tenths had net positive savings of only \$1,216,000,000, but the top tenth—those with incomes of \$2,600 and over—had net positive savings of \$6,285,000,000, or 105 percent of the net-savings figure for all income levels combined. The lower two-thirds of the Nation had only negative saving: The lower third, \$1,207,000,000; the middle third, \$252,000,000. The top third, however, saved \$7,437,000,000, an amount equal to 124 percent of the net savings of the Nation as a whole.⁸

⁷ Savings are defined as the net change in assets and liabilities of the family or individual during the year, exclusive of gains or losses from revaluation of assets. Appreciation or depreciation in the value of stocks or other holdings are not considered. The authors derive their estimates from a sample of 60,000 families living in cities of different sizes, in villages, and on farms in 30 different States, and from a less extensive sample of single men and women. (Ibid., p. 22.)

⁸ Ibid., pp. 54-55.

The Brookings study also shows that most of the saving is done by families and individuals in the high-income levels.⁹ Table 23 reveals that 16.2 million families (59 percent of the families) with incomes up to \$2,000, saved about \$250,000,000; 8.9 million families (32 percent), with incomes from \$2,000 to \$5,000, saved approximately 3.8 billion dollars; 2 million families (7 percent), with incomes from \$5,000 to \$20,000, saved approximately 4.5 billion dollars; and the 219,000 families with incomes over \$20,000 saved more than 8 billion dollars.

TABLE 23.—Aggregate savings of families, by income groups, 1929

Income class (in dollars)	Number of families	Aggregate savings	
		Millions of dollars	Percentage of total
Under 0 1	120,000	-1,588	-10
0 to 1,000	5,779,000	-550	-5
1,000 to 2,000	10,455,000	801	5
2,000 to 3,000	5,192,000	1,490	10
3,000 to 4,000	2,440,000	1,319	9
4,000 to 5,000	1,232,000	998	7
5,000 to 10,000	1,625,000	2,549	17
10,000 to 20,000	412,000	2,003	13
20,000 to 50,000	156,000	1,836	12
50,000 to 100,000	39,000	1,165	8
100,000 and over	24,000	5,116	34
All classes	27,474,000	15,139	100

¹ Includes families which suffered losses in excess of current income. "These people are not those who are usually at the bottom of the scale; they would normally be found scattered through the various income groups." (p. 93.)

Source: M. Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to Consume*, Brookings Institution, Washington, 1934, p. 93.

The study also shows that 2.3 percent of all families—those with incomes over \$10,000—contributed two-thirds of the entire savings of all families, while the 59 percent earning less than \$2,000 contributed only 1.6 percent of total savings. Approximately 60,000 families with incomes over \$50,000 per year saved almost as much as the 25 million families (91 percent of the total) who had incomes under \$5,000.

Table 24 shows the amount and percentage of income saved for farm and nonfarm families, by income groups. In both groups an increasing percentage is saved at each successive income level. Although on the whole farm families saved more than nonfarm families in the same groups, farm families, which represented 21 percent of the total number of families, contributed less than 10 percent of the total monetary savings.¹⁰

⁹ Leven and associates, *op. cit.*, pp. 92-93. This also was a study based on sample data, but the sample was smaller than in the National Resources Committee report. The Brookings study defines savings to include all life and health insurance premiums, all income used in purchasing securities, homes, and real estate, and all increases in bank deposits.

¹⁰ *Ibid.*, p. 94.

TABLE 24.—*Savings of farm and nonfarm families, 1929*

Income class (in dollars)	Number of families (in thousands)	Aggregate savings (in millions of dollars)	Percentage of income saved
Farm families.....	5,796	1,405	20
Under 0	70	-84	-----
0 to 500	1,382	-117	-27
500 to 1,000	1,712	-35	-3
1,000 to 1,500	1,005	99	8
1,500 to 2,000	607	225	21
2,000 to 3,000	614	476	32
3,000 to 4,000	230	334	42
4,000 to 6,000	142	348	52
6,000 to 10,000	34	159	64
Nonfarm families.....	21,678	13,734	20
Under 0	50	-1,504	-----
0 to 1,000	2,685	-398	-22
1,000 to 1,500	4,749	73	1
1,500 to 2,000	4,094	404	6
2,000 to 3,000	4,578	1,014	9
3,000 to 4,000	2,210	985	13
4,000 to 6,000	1,756	1,390	17
6,000 to 10,000	925	1,650	24
10,000 to 20,000	412	2,003	36
20,000 to 50,000	156	1,836	39
50,000 to 100,000	39	1,165	44
100,000 to 250,000	16	1,069	49
250,000 to 1,000,000	7	1,648	56
1,000,000 and over	1	2,399	66
Farm and nonfarm families.....	27,474	15,139	20

Source: M. Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to Consume*, Brookings Institution, Washington, 1934, p. 95.

Concentration of savings in the high-income levels is strikingly shown in table 25, which divides the population as a whole into 10 equal numerical groups, each of which contains 2.75 million families. The upper 10 percent of the families, including those with incomes above \$4,600, accounted for about 86 percent of the total saving. The second group, with incomes from \$3,100 to \$4,600, saved 12 percent of the total, while the 80 percent of the population with the lowest incomes saved the remaining 2 percent of the total.¹¹

TABLE 25.—*Aggregate savings of families, by income groups, 1929*

[Aggregates are in billions of dollars]

Income class ¹ (in dollars)	Aggregate income	Aggregate savings	Percentage of income saved
4,600 and over	34.6	13.0	38
3,100 to 4,600	10.3	1.8	17
2,450 to 3,100	7.7	1.0	13
2,000 to 2,450	6.4	.7	11
1,700 to 2,000	4.8	.4	8
1,450 to 1,700	4.2	.2	5
1,250 to 1,450	3.6	.1	3
950 to 1,250	3.0	.0	0
600 to 950	2.2	-.1	-5
0 to 600 ²	.9	-.4	-44
Under 0 ²	-.6	-1.6	(³)
All classes	77.1	15.1	20

¹ Each income class consists of 2.75 million families.

² The class under \$600 has been broken into 2 parts to show the families with negative incomes separately. Such families number 120,000 of the 2.75 million families with incomes under \$600.

³ Negative income.

Source: M. Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to Consume*, Brookings Institution, Washington, 1934, p. 96.

¹¹ *Ibid.*, p. 95. Mordecai Ezekiel has estimated annual savings of income taxpayers for the years 1918-35, in "Annual Estimate of Savings by Individuals," *Review of Economic Statistics*, vol. 19, 1937, pp. 178-191.

A study of the savings of wage earners and clerical workers in 42 cities of the United States shows again what a comparatively small amount of saving is done by the low-income groups.¹² The average income of the families studied was \$1,524, and the average savings, \$11. Those with incomes of from \$500 to \$600 had an average deficit of \$80, and not until the income level \$1,500 to \$1,800 was reached was there a positive saving, which averaged \$19. Families in the highest income level studied, \$3,000 and over, had an average positive saving of \$231.

Institutional Processes of Saving.

Further indication of the concentration of ownership of savings in the United States can be obtained by studying the available information on the processes of saving. D. H. Davenport testified before the T. N. E. C. in 1938 that the total savings of individuals which had accumulated in various formal savings institutions were approximately \$70,000,000,000. About \$60,000,000,000 of this sum was accumulated by four processes: Savings through life insurance companies, time deposits and savings accounts of commercial banks, deposits in mutual savings banks and in building and loan associations. The remainder was accounted for by governmental pensions and trust funds (including social security payments), by postal savings, and by baby bonds.

The individuals who comprised this thrift group had 44,000,000 savings accounts and 124,000,000 life insurance policies. Over 6,000,000 of them owned shares in building and loan associations.¹³ Nevertheless, the unknown amount of duplication involved means that the actual owners of savings are probably much fewer than the figures indicate.

Life insurance.—The most important of these institutional processes of saving is life insurance. The largest reservoir of accumulated savings is held by life insurance companies.¹⁴ At the present time approximately 366 legal reserve life insurance companies own assets in excess of \$28,000,000,000¹⁵ and have an annual income totaling over \$5,000,000,000, "an amount slightly less than the receipts of the United States Government and equal to about 8 percent of our national income in 1938."¹⁶ Over 64,000,000 policyholders owning 124,000,000 different policies valued at approximately \$111,000,000,000 contribute to the annual premium income of these companies.¹⁷

In spite of lack of information on the holdings of insurance policies by individuals at various income levels and on the distribution of insurance policies by size of policy, it is clear that the ownership of policies as well as the benefits received from life insurance are unevenly distributed among the policyholders.

Life insurance may be sold to individuals in the form of "ordinary" or "industrial" policies, or it may be sold to a group of persons,

¹² Savings in this study represented net changes in the differences between assets and liabilities, that is, changes in net worth. Faith M. Williams, and Alice H. Hanson, "Savings of Wage Earners and Clerical Workers," *Monthly Labor Review*, July 1940, pp. 119-139.

¹³ Hearings before the Temporary National Economic Committee, part 9, Savings and Investment, pp. 3734-3736, 3773, 4052.

¹⁴ In 1938, almost half the total assets of formal savings institutions were owned by life insurance companies. See Statistical Abstract of the United States, 1939, pp. 254, 264, 269, and 293.

¹⁵ Legal reserve life insurance companies have written about 95 percent of all life insurance in force in the United States. The remaining 5 percent is written by fraternal orders and assessment associations. See Temporary National Economic Committee Monograph No. 28, Study of Legal Reserve Life Insurance Companies, p. 5.

¹⁶ *Ibid.*, p. 6.

¹⁷ See *ibid.*, p. 5. There is no indication, however, of the location of these 64,000,000 policyholders, either as to income level or family interrelationship.

customarily employees of a single employer. Ordinary policies are usually issued in units of \$1,000 or more, and industrial policies, which are primarily for persons in the low-income brackets, are for smaller face amounts. At the end of 1938, of the 124,000,000 policies outstanding, approximately 88,000,000 were industrial policies held by some 50,000,000 people. These policies represented \$21,000,000,000 of insurance in force. Ordinary policies, including group policies, on the other hand, numbered 36,000,000 and were valued at \$90,000,000,000.¹⁸

There is no estimate available of the number of people holding ordinary policies. However, some of the holders of industrial policies also own ordinary policies. Hence, the number of people owning ordinary life insurance is probably greater than the 14,000,000 derived by subtracting 50,000,000 industrial policyholders from the estimated total of 64,000,000. Even allowing for such duplications, over 80 percent of the total insurance in force is held in units of \$1,000 and over by a relatively small proportion of the individuals owning insurance policies.¹⁹ On the other hand, the holders of industrial insurance policies, who constitute the large majority of the number of individuals insured, own less than 20 percent of the amount of insurance in force.

Although insurance policies are probably not used extensively by the extremely wealthy as a means of saving, since they have outlets which yield more profitable returns, the moderately wealthy undoubtedly own considerably more insurance than do the people in the low-income levels. This is true both because they carry larger policies and because many of them own more than one policy.

The Prudential Life Insurance Co. studied a sample group of deceased policyholders (2,499 married men and 215 single men) who had held insurance in the Prudential and other companies in amounts ranging in the aggregate from \$5,000 to \$40,000 per individual. These data are classified in table 26, according to the approximate annual income of the policyholder prior to death.

TABLE 26.—*Amount of insurance carried by a selected group of policyholders classified according to approximate annual income prior to death*

Amount of annual income	Insured individuals		Insurance carried		Average amount of insurance per person
	Number	Percent	Amount	Percent	
Under \$1,500.....	226	8.3	\$1,684,901	5.8	\$7,455
\$1,500-\$2,000.....	267	9.8	2,027,798	6.9	7,595
\$2,000-\$2,500.....	354	13.0	2,910,611	10.0	8,222
\$2,500-\$3,500.....	581	21.4	5,121,942	17.5	8,515
\$3,500-\$5,000.....	430	15.8	4,813,354	16.5	11,194
\$5,000-\$7,500.....	444	16.5	5,898,997	20.2	13,286
\$7,500-\$10,000.....	108	4.0	1,670,383	5.7	15,466
\$10,000 and over.....	504	11.2	5,086,146	17.4	16,731
Total.....	2,714	100.0	29,214,132	100.0	10,764

Source: Mary Dublin, *The Amount of Life Insurance in the United States*, Miscellaneous Contributions on the Costs of Medical Care, No. 11, 1932.

¹⁸ Statistical Abstract of the United States, 1939, p. 293, and Temporary National Economic Committee Monograph No. 28, pp. 177-178, 250-253.

¹⁹ In fact, it has been estimated that "the great bulk of the cash-surrender value of all outstanding life insurance policies is held by 1 or 2 million policyholders." (Testimony of R. H. Jackson in hearings before the Senate Finance Committee on the Revenue Act of 1935, 74th Cong., 1st sess., 1935, p. 180.)

Only 8.3 percent of these individuals were in the under \$1,500 income level, and they carried only 5.8 percent of the amount of insurance carried by the group. Although the largest number of individuals in the group were in the \$2,500-\$3,500 income level, 11.2 percent were in the class receiving over \$10,000, and carried 17.4 percent of the insurance of the group.

Other institutional processes of saving.—In 1930, according to D. H. Davenport, total savings deposits in the mutual savings banks and in savings departments of commercial banks amounted to \$29,000,000,000, but no one knows how many million people contributed to this fund. The report of the Comptroller of the Currency gives the number of depositors for that year as 52,000,000, but there were many duplications where depositors had more than one account. Davenport said that, "In general, the very wealthy did not make extensive use of savings deposits. Wealthy people had other opportunities for investment and were not satisfied by the small interest rates paid on savings accounts." The number of deposits, he said, indicated that savings accounts are primarily used by the middle class.²⁰

However, some idea of the extent of concentration in the ownership of savings and time deposits can be gained from a study of insured deposits made by the Federal Deposit Insurance Corporation for 1938.²¹ The analysis was based on the distribution of deposits by size of account, and no survey was made of the number of depositors actually owning accounts. The degree of concentration in ownership is probably understated, therefore, to the extent that individuals with large amounts to deposit own more than one account.²²

In September 1938, 90 percent of the deposits in insured mutual savings banks were covered by the \$5,000 maximum coverage of the present law. This does not mean that 90 percent of the total deposits were in accounts of less than \$5,000, since the first \$5,000 is covered for all accounts; but it does show that most of the accounts in insured mutual savings banks were under \$5,000.²³ Information is not available, unfortunately, as to the size distribution of accounts under \$5,000.

An analysis of savings and time deposits made in insured commercial banks reveals that in September 1938, 98.9 percent of the savings accounts—those under \$5,000—held 71.4 percent of the deposits. Accounts over \$25,000 represented one-tenth of 1 percent of the number of accounts, but 8.1 percent of the deposits.²⁴

A much greater concentration of ownership is seen in the demand deposits of commercial banks, although this is undoubtedly due to the great preponderance of business accounts. Nevertheless, there are some individual accounts which are very large. For example, accounts of individuals with balances over \$100,000, as reported by the 98 largest member banks of the Federal Reserve System, amounted to \$280,000,000 on December 31, 1933, and \$430,000,000 on December 31, 1935.²⁵

²⁰ Ibid., Part 9, pp. 3771-3772. Information as to the concentration of assets in geographic areas and in certain large banks is given on pp. 3758-3765.

²¹ F. D. I. C., Annual Report, 1938, pp. 79-100.

²² A sample study conducted by the F. D. I. C. showed that the number of depositors in a bank was about 10 percent less than the number of accounts, but this fact gives no indication of the number of depositors who have accounts in different banks. Information from the F. D. I. C.

²³ Ninety-eight percent of total deposits would be insured if there were a maximum coverage of \$10,000, and 99 percent with a maximum coverage of \$25,000. F. D. I. C., Annual Report, 1938, p. 99.

²⁴ Unpublished data released by the Federal Deposit Insurance Corporation.

²⁵ Haskel Wald, "Deposits by Classes of Depositors, 1937," Federal Reserve Bulletin, May 1940, p. 402.

In 1930 there were 12,000,000 members of building and loan associations which owned assets of \$8,800,000,000.²⁶ Concerning postal savings, there were on June 30, 1939, 2,767,417 depositors and a balance to the credit of depositors of \$1,262,291,829.²⁷ In 1929, only 11,037 out of 416,584 depositors owned deposits of \$2,500, the maximum permitted.²⁸

While formal savings institutions may for the most part be utilized by those who have comparatively small or medium-sized amounts to invest, very wealthy individuals tend either to invest their savings directly or place them in the hands of trustees for investment. Such savings are reflected in the ownership of real estate, of private and public debt, and of corporate stock, and are discussed elsewhere in this chapter.

Business Savings.

Business savings are defined by Altman as "the amount of money left in the hands of a business enterprise after paying all the expenses of production, including rent, interest, wages, taxes, etc., and after payment of dividends to preferred and common stockholders. In the case of unincorporated business enterprises savings are equal to the amount left in the business after the payment of profits to the owners."²⁹ He estimates that business enterprises in prosperous years have contributed about two-fifths of total gross savings.³⁰ His calculations of business savings for all nonfinancial enterprises, unadjusted for capital gains and losses, are as follows, for selected years:³¹

1929-----	+\$2, 274, 000, 000	1937-----	+\$910, 000, 000
1935-----	-26, 000, 000	1938-----	-1, 397, 000, 000
1936-----	+1, 014, 000, 000	1939-----	+778, 000, 000

Corporations account for the bulk of business savings. There is considerable evidence of a high degree of concentration of corporate savings in the hands of the large corporations.³² In 1936, of the 478,857 reporting corporations, 751 corporations—those with assets over \$50,000,000—saved \$1,165,000,000 out of the \$2,924,000,000 gross savings of all reporting corporations. In other words, less than two-tenths of 1 percent of the corporations accounted for over 40 percent of the gross savings. In 1937, of the 477,838 reporting corporations, 749—with assets over \$50,000,000—made gross savings of \$1,344,000,000 out of the total of \$2,906,000,000 reported. Less than two-tenths of 1 percent of the corporations accounted for more than 46 percent of the gross savings.³³

²⁶ Hearings before the Temporary National Economic Committee, Part 9, p. 3772.

²⁷ United States Board of Trustees, Postal Savings System, Annual Report of the Postal Savings System, 1939, p. 1.

²⁸ Information from Donald Sham, The United States Postal Savings System, in preparation. Prior to 1930 the depositors were predominantly a low-income group, living in urban centers; but since the depression there has been a change in the type of depositor as well as an increase in the number of depositors. In Chicago, for example, there was probably a large number of school teachers among the new depositors.

²⁹ In 1932, the number of depositors passed the million mark for the first time and since 1933 it has been well over 2,000,000. (Annual Report of the Postal Savings System, 1939, p. 5.)

³⁰ Hearings before the Temporary National Economic Committee, Part 9, p. 3679. For other concepts and estimates of business savings, see R. W. Goldsmith, *Studies in Income and Wealth*, vol. III, pp. 284-285; and Maurice Leven and associates, *America's Capacity to Consume*, p. 98.

³¹ Temporary National Economic Committee Monograph No. 37, *Savings, Investment, and National Income*, p. 20.

³² *Ibid.*, appendix I.

³³ *Ibid.*, p. 22.

³⁴ *Ibid.*, appendix VII. It should be noted that these figures must necessarily come from the returns of corporations submitting balance sheets. It is considered probable, however, that corporations which do not submit balance sheets have assets less than \$50,000. See hearings before the Temporary National Economic Committee, Part 9, p. 4050.

The available information concerning the ownership of corporations which do the saving is contained in chapter VII.

OWNERSHIP OF DEBT

Debts incurred by individuals, business enterprises, and Government bodies are owned by other individuals and groups who hold the debt certificates. While a debt certificate—in the form of a bond, mortgage, note, etc.—is issued to the lender at the time the obligation is incurred, it may pass through the hands of many owners through subsequent transfers. The question of whether or not concentration exists in the ownership of debt, therefore, must be answered by determining the aggregate volume of the various classes of outstanding debt and the amounts held by the present owners.

The following section is a brief discussion of the available material on the amount, composition, and ownership of the Government, or public, debt and of such private categories as farm mortgage debt, urban mortgage debt, and corporate debt.

Public Debt.

The public debt is made up of obligations of the Federal, State, and local governments to make payments of interest or principal, or both, on stated or determinable dates. The Treasury computed the total gross Federal debt to be \$36,425,000,000 in 1937 and \$37,165,000,000 in 1938.

If the contingent or guaranteed debt of the United States is added, the gross Federal debt was \$41,120,000,000 in 1937 and \$42,143,000,000 in 1938.³⁴ Probably the best estimate for the total State and local debt was made by the Treasury also. It was \$19,595,000,000 for 1937.³⁵

Several estimates have been made of the distribution of the ownership of the public debt by type of holder. Tables 27 and 28 are estimates by the National City Bank of New York and by the United States Treasury.

TABLE 27.—*Distribution of United States Government direct and guaranteed debt as of June 30, 1930 and 1940*

[In millions of dollars]

	June 30, 1930	June 30, 1940	Change
Outstanding:			
Total direct debt	16, 185	42, 968	+26, 783
Total guaranteed debt		5, 560	+5, 560
Total debt	16, 185	48, 528	+32, 343

³⁴ Certain governmental corporations and agencies are authorized to issue bonds and other obligations guaranteed by the United States. Although these are primarily obligations of the issuing agencies, and the assets of these agencies are to be used for their payment, they are classified as contingent liabilities of the United States. (Annual Report of the Secretary of the Treasury, 1938, pp. 20, 72, 492, and 520.)

³⁵ Treasury Department, *Securities Exempt From the Federal Income Tax as of June 30, 1937* (hereafter referred to as *Treasury Greybook*), p. 52. Gross debt includes all types of debt obligations. Net debt is computed by deducting from the gross debt figure the net balance in the Treasury general fund. Sternberg, using a net debt category which eliminated duplicating and overlapping debt, estimated the total net Federal debt as \$32,834,000,000 in 1938 and \$35,221,000,000 in 1939, and that of the State and local governments as \$15,276,000,000 in 1938 and \$15,583,000,000 in 1939. (J. W. Sternberg, *Indebtedness in the United States, 1929-30*, Survey of Current Business, June 1940, p. 15.) He describes overlapping debt as that which is incurred at two or more stages in the performance of a single purpose. "Thus, when the Federal Government or a Federal corporation issues bonds, which in turn provide funds to purchase mortgages on households, the overlapping debt of the intermediary agency must be eliminated, leaving only the debts of the end borrower in the net-debt totals" (Ibid., p. 13).

TABLE 27.—*Distribution of United States Government direct and guaranteed debt as of June 30, 1930 and 1940—Continued.*

[In millions of dollars]

	June 30, 1930	June 30, 1940	Change
Distribution banks.			
Commercial banks:			
Direct.....	4,796	13,089	+8,293
Guaranteed.....		3,460	+3,460
Commercial banks, total.....	4,796	16,549	+11,753
Mutual savings and private banks ¹	² 702	3,162	+2,460
Total banks, excluding Federal Reserve banks.....	5,498	19,711	+14,213
Federal Reserve banks.....	591	2,450	+1,856
United States agencies and trust funds:			
Old-age insurance fund.....		1,738	+1,738
Railroad retirement account.....		79	+79
Unemployment compensation trust fund.....		1,710	+1,710
Employees retirement fund.....	158	² 568	+410
Veterans insurance and trust funds.....	704	² 858	+154
Postal Savings System.....	26	1,218	+1,192
Federal Deposit Insurance Corporation.....		347	+347
Federal Savings and Loan Insurance Corporation.....		123	+123
Other Government agencies.....	30	409	+379
Other trust funds.....	58	² 23	-35
Total agencies and trust funds.....	976	7,073	+6,097
Insurance companies:			
Life insurance companies.....	² 331	² 6,088	+5,757
Fire insurance companies.....	² 169	² 462	+293
Casualty insurance companies.....	² 108	² 470	+362
Total insurance companies.....	608	7,020	+6,412
Total accounted for.....	7,673	36,254	+28,581
Balance unaccounted for, held by individuals, corporations, trustees, etc.....	8,512	12,274	+3,762
Percentage distribution:			
Commercial banks.....	29.7	34.1	+4.4
Savings and private banks.....	4.3	6.5	+2.2
Total banks.....	34.0	40.6	+6.6
Federal Reserve banks.....	3.6	5.0	+1.4
United States agencies and trust funds.....	6.1	14.6	+8.5
Insurance companies.....	3.8	14.5	+10.7
Total accounted for.....	47.5	74.7	+27.2
Balance unaccounted for.....	52.5	25.3	-27.2

¹ Private bank holdings amounted to \$2,000,000 in 1930 and to \$49,000,000, in 1940.² Partly estimated.

Source: bulletin of the National City Bank of New York, New York, January 1941, p. 10.

TABLE 28.—*Ownership of the State and local bonded debt, for dates around June 30, 1932* ¹

Held by—	Amount (000,000 omitted)	Per- cent of total
State and local government and public trust funds.....	\$3,500	19.4
Legal reserve life insurance companies.....	840	4.7
Other insurance companies.....	920	5.1
National banks.....	1,031	5.7
Mutual savings banks.....	1,102	6.1
Other banks.....	668	3.7
Individuals with incomes of \$5,000 or over.....	2,600	14.4
Total specifically accounted for.....	10,661	59.1
Held by other lenders ²	7,364	40.9
Total.....	18,025	100.0

¹ It is not possible to secure data for comparable dates for all investor groups. Where possible, the data are for June 30, 1932; however, since several of the figures are only rough approximations, the fact that the dates are not exactly the same for all the figures does not impair their usefulness for the present purpose.² Accounted for mainly by corporations other than banks and insurance companies, trust accounts not included with individual holdings, individuals with incomes of less than \$5,000, and foreign holdings.

Source: D. C. Horton, Long-Term Debts in the United States, Government Printing Office, Washington 1937, p. 185.

Table 29, compiled by the Treasury Department, gives an estimate of the holdings of tax-exempt securities by various classes of investors, for dates ranging from 1934 to 1937. The financial corporations (banking, insurance, real estate, holding companies, stock and bond brokers, etc.) are the largest single group of corporate owners of tax-exempt securities. Moreover, the Treasury Department has estimated that their share of these securities has been increasing from

TABLE 29.—*Estimated total volume of tax-exempt securities and recorded holdings of selected categories of investors (as of varying recent dates)*

[In millions of dollars]

Category	Date	Total	Securities of the U. S. Government and Federal agencies	Securities of State, local, and Territorial governments
Total volume of tax-exempt securities.....	June 30, 1937	65,648	46,350	19,298
Holdings of the various governments and the Federal Reserve banks.....	do.....	15,126	10,802	4,324
Net outstanding volume of tax-exempt securities.....	do.....	50,522	35,548	14,974
Recorded holdings of selected categories of private investors: ¹				
Individuals with net income under \$5,000.....	Dec. 31, 1934	1,334	827	507
Individuals with net income of \$5,000 or over.....	Dec. 31, 1935	4,625	2,063	2,562
Banks (excluding mutual savings).....	June 30, 1937	17,685	14,916	2,769
Life insurance companies.....	Dec. 31, 1937	5,840	4,416	1,424
Other insurance companies.....	Dec. 31, 1936	1,157	835	322
Nonfinance corporations.....	Dec. 31, 1935	2,126	1,767	359
Mutual savings banks.....	June 30, 1937	3,231	2,400	831
Fraternal benefit societies.....	Dec. 31, 1936	550	(2)	(2)
Foundations.....	do.....	67	3	(2)
Universities and colleges.....	Dec. 31, 1935	25	(2)	(2)

¹ The available records of private investments in tax-exempt securities refer to varying dates ranging over a 3-year period and, therefore, are not totaled. In the aggregate they cover approximately $\frac{3}{4}$ of the total, or 36.6 billion dollars, consisting of 27.3 billion dollars of U. S. Government and Federal agency securities and 9.3 billion dollars of State, local, and Territorial issues. Furthermore, the tax-exempt security holdings of the individual categories of private investors above enumerated are themselves incomplete. Securities reported to be held by individuals filing income tax returns, for instance, are known to be incomplete due to the under-reporting of securities held directly, and especially those held indirectly through partnerships and fiduciaries.

² Distribution unknown.

Source: U. S. Treasury Department, Securities Exempt From the Federal Income Tax as of June 30, 1937 p. 113.

year to year, from 67 percent of all tax-exempt obligations owned by corporations submitting balance sheets in 1926 to 74 percent in 1930 and 90 percent in 1935.³⁶

Concentration of ownership appears in both the institutional and individual holdings of public debt. The largest corporations and the wealthiest individuals tend to own the largest proportion of the tax-exempt securities.³⁷

One indication of the concentration of corporate ownership of tax-exempt securities is seen in table 30, which shows receipts of tax-

³⁶ Treasury Greybook, p. 107. The percentage of the public debt held directly by individuals with incomes of over \$5,000 may not seem large, although the estimate is based on income tax returns and is clearly an understatement. (Ibid., pp. 99-101; A. G. Hart, *Debts and Recovery*, Twentieth Century Fund, 1938, p. 123.)

An estimate by Harley Lutz, of the ownership of State, local, and Territorial debt in 1937, which uses \$19,298,000,000 as the total value of these bonds, assigns 26.1 percent of the total to taxable corporations, 3.1 percent to individuals with net incomes under \$5,000, and 40.8 percent to individuals with net incomes of \$5,000 and over, including partnerships, estates, and trusts. (See hearings before the Special Senate Committee on Taxation of Governmental Securities and Salaries, 75th Cong., 1st sess., p. 119.)

³⁷ It should be noted that the total volume of tax-exempt securities is not equivalent to the total volume of public debt, although one term is often used for the other. The gross volume of public debt includes both interest-bearing and noninterest-bearing obligations. But noninterest-bearing securities are of no importance for exemption from income tax, and they are not included in volume of tax-exempt securities. Nevertheless, the total volume of tax-exempt securities is larger than the gross amount of borrowing from the public since the former includes some duplication and some items—such as securities issued by

exempt interest in 1937 by corporations of different sizes. Although the amount of interest received does not increase steadily in size of asset class, there is an extraordinary concentration in receipts by the largest corporations. The corporations in the asset classes under \$1,000,000, which comprise 94.4 percent of the corporations submitting balance sheets, received only 5 percent of the tax-exempt interest reported. On the other hand, the corporations in the asset classes over \$1,000,000, comprising but 5.6 percent of the reporting corporations, received 95 percent of the interest reported by all corporations submitting balance sheets. Moreover, the 394 largest corporations—those with assets of over \$100,000,000—accounted for 56.8 percent of the interest received by the 416,902 reporting corporations.

TABLE 30.—*Wholly tax-exempt interest receipts for all corporations submitting balance sheets, by asset classes, for the year 1937*

Asset class	Returns		Wholly tax-exempt interest received	
	Number	Percent of total	Amount (thousands)	Percent of total
Under \$50,000.....	228,721	55.0	337	0.1
\$50,000 and under \$100,000.....	60,238	14.4	402	.1
\$100,000 and under \$250,000.....	58,817	14.1	1,873	.4
\$250,000 and under \$500,000.....	27,992	6.7	7,146	1.5
\$500,000 and under \$1,000,000.....	17,587	4.2	13,553	2.9
\$1,000,000 and under \$5,000,000.....	17,897	4.3	52,297	11.1
\$5,000,000 and under \$10,000,000.....	2,620	.6	25,305	5.4
\$10,000,000 and under \$50,000,000.....	2,281	.5	74,841	15.9
\$50,000,000 and under \$100,000,000.....	355	.1	27,461	5.8
\$100,000,000 and over.....	394	.1	267,319	56.8
Total.....	416,902	100.0	470,535	100.0

Source: U. S. Treasury Department Statistics of Income, 1937, Part. II, pp. 80-81.

Some information concerning the public debt holdings of individuals can be obtained from the Federal individual income tax returns on holdings of tax-exempt securities. In 1938 the Treasury made a study of tax-exempt securities as of June 30, 1937. The authors estimated that the gross volume of tax-exempt securities was \$65,648,000,000. Nongovernmental owners held \$50,522,000,000 of this, since \$15,126,000,000 was owned by Federal, State, local, and Territorial governments, or their agencies, and by the Federal Reserve banks.

A special analysis of 1934 income tax returns of individuals with net incomes of less than \$5,000 indicates that they held at the close of that year \$827,000,000 of Federal securities and \$507,000,000 of the State and local obligations.³⁸

In 1935 individuals with incomes over \$5,000 owned \$2,063,000,000 of Federal securities and \$2,562,000,000 of State, local, Territorial,

joint stock land banks—which are not contained in the public debt. (Treasury Greybook, p. 5.)

The data on holdings of tax-exempt securities are incomplete since the information on ownership of such obligations required in income tax returns is of a merely supplementary, informational nature. The Treasury reports that the available records of private ownership of tax-exempt securities account for three-fourths of the estimated volume of net outstanding tax-exempt securities. The ownership of the remaining amount is unknown. (Ibid., pp. 100, 112-113.)

³⁸ Treasury Greybook, p. 101.

and insular securities, according to the data compiled in Statistics of Income. These holdings are analyzed by size of income class in table 31.

TABLE 31.—*Percentage distribution of tax-exempt obligations owned, by net income classes, 1935*

Net income classes	Number of returns ¹	Percent of total	Net income classes	Number of returns ¹	Percent of total
\$5,000 to \$10,000	339,842	15.0	\$50,000 to \$100,000	8,033	14.5
\$10,000 to \$25,000	123,564	24.4	\$100,000 to \$150,000	1,395	7.2
\$25,000 to \$50,000	26,029	19.4	Over \$150,000	1,252	19.5

¹ Statistics of Income, 1935, Part I, p. 10.

Source: Treasury Greybook, p. 102.

Although the percentage of tax-exempt securities owned by each class does not show a steady growth with increase in income, nevertheless a relatively large proportion of these securities was owned by the comparatively few individuals with very high incomes, since 41.2 percent was owned by those 10,680 persons with incomes over \$50,000, and 26.7 percent was owned by the 2,647 individuals with incomes over \$100,000.

Moreover, the average holding of these securities per reporting individual shows an impressive increase by income brackets, as can be seen from table 32. Of the people reporting incomes above \$5,000, 2 percent, or those with incomes over \$50,000, owned 43 percent of the tax-exempt obligations held by the group, whereas 67 percent, or those with incomes from \$5,000 to \$10,000, owned only 15 percent of the obligations reported.³⁹

TABLE 32.—*Tax-exempt obligations reported by individuals with net incomes over \$5,000, by net income classes, 1935*

Income class	Number of returns ¹	Value of tax-exempt obligations owned	
		Total ² ('000 omitted)	Average per return
\$5,000 to \$10,000	339,842	\$694,916	\$2,045
\$10,000 to \$25,000	123,564	1,127,219	9,123
\$25,000 to \$50,000	26,029	899,600	34,561
\$50,000 to \$100,000	8,033	671,338	83,573
\$100,000 to \$150,000	1,395	332,070	238,043
Over \$150,000	1,252	900,043	718,884
Total	500,115	4,625,186	-----

¹ Statistics of Income, 1935, Part I, p. 10.

² Treasury Greybook, p. 102.

³⁹ A pattern of concentration of ownership of tax-exempt securities similar to that shown by income tax data appears in the Federal Trade Commission survey made in 1923. The Commission sent questionnaires to above 10,800 individuals actively connected with three or more business ventures, as well as to some other individuals who were "reputed to be wealthy."

Of those individuals with taxable incomes in excess of \$10,000 in 1922, almost 44 percent held tax-exempt securities. The proportion increased from 37 percent for the 1,594 individuals in the \$10,000 to \$25,000 class to 78 percent for the 18 persons in the \$500,000 to \$1,000,000 group. The figure for those reporting incomes over \$1,000,000 dropped to 71.4 percent, but the drop is not significant since the group included only 7 people.

The higher the income group, the greater was the proportion of individuals who owned tax-exempt securities; the greater were the average holdings of such securities per individual; and the greater was the proportion of the wholly tax-free securities owned. (Federal Trade Commission, Taxation, and Tax-Exempt Income, S. Doc. 148, 68th Cong., 1st sess., 1924, p. 3.)

Table 33 gives a cumulative percentage distribution of number of returns and value of obligations owned in 1937, by net income class.

TABLE 33.—*Value of tax-exempt obligations owned by individuals with net incomes over \$5,000, by net income classes, 1937*

Net income class	Returns				Value of tax-exempt obligations owned ¹			
	Number	Per- cent of total	Cumulative percentages		Amount (000 omitted)	Per- cent of total	Cumulative percentages	
\$5,000 to \$10,000.....	471, 171	66.9	100.0	66.9	\$819, 349	15.2	100.0	15.2
\$10,000 to \$25,000.....	178, 446	25.3	33.1	92.2	1, 224, 591	22.8	84.8	38.0
\$25,000 to \$51,000.....	38, 948	5.5	7.8	97.7	1, 009, 416	18.7	62.0	56.7
50,000 to \$100,000.....	12, 318	1.7	2.3	99.4	852, 537	15.8	43.3	72.5
\$100,000 to \$150,000.....	2, 269	.3	.6	99.7	398, 929	7.4	27.5	79.9
Over \$150,000.....	1, 881	.3	.3	100.0	1, 082, 137	20.1	20.1	100.0
Total.....	705, 033	100.0	-----	-----	5, 386, 959	100.0	-----	-----

¹ Includes partially tax-exempt obligations.

Source: U. S. Treasury Department, Statistics of Income, 1937, Part. I, pp. 8, 181.

An even higher degree of concentration of ownership of tax-exempt securities in the hands of the very wealthy can be seen from summaries compiled from Federal estate tax returns.⁴⁰ An analysis of the estate tax returns filed during 1938 shows that the bulk of the wholly exempt bonds, whether Federal, State, or local, held by estates is in the hands of the extremely wealthy. Although table 34 does not show an absolutely steady increase in holdings by estate class, it does show that the highest percentage of such bonds is held by the highest class. The 64 percent of the reporting estates which were under \$100,000 owned but 3.2 percent of the wholly exempt Federal bonds held by estates and 5.6 percent of the State and municipal bonds, whereas 0.1 percent of the estates (those over \$10,000,000) owned 28 percent of the Federal wholly exempt and 22.1 percent of State and municipal bonds. There is no such concentration in the ownership of the partially exempt bonds, and it is clear that these bonds are not so much sought after by the very wealthy.

TABLE 34.—*Percentage distribution of the ownership of Federal, State, and municipal bonds by individuals in various net estate classes, 1938¹*

Net estate classes ²	Number of estates	Federal bonds		State and municipal bonds
		Wholly exempt	Partially exempt	
Under \$100,000.....	64.0	3.2	24.8	5.6
\$100,000 and under \$500,000.....	31.1	11.5	42.5	18.2
\$500,000 and under \$1,000,000.....	2.9	9.4	11.1	11.9
\$1,000,000 and under \$2,500,000.....	1.5	16.9	13.6	18.0
\$2,500,000 and under \$5,000,000.....	.3	10.5	1.7	11.5
\$5,000,000 and under \$10,000,000.....	.1	20.5	.3	12.7
\$10,000,000 and over.....	.1	28.0	6.0	22.1
Total.....	100.0	100.0	100.0	100.0

¹ Computed from estate tax returns filed during the calendar year 1938.

² After authorized deductions for estate, inheritance, legacy, or succession taxes paid to any State or Territory, or the District of Columbia, and for the Federal gift tax, but before specific exemption of \$40,000.

Source: Based on Statistics of Income, 1937, pp. 54-61.

⁴⁰ It should be noted, however, that these data are not so representative of living individuals in the country as a whole as are income tax returns, since they represent a smaller proportion both of wealth and of tax-exempt securities, and since the income of estates comes from investments, whereas personal earnings constitute a considerable portion of taxable incomes even over \$100,000 (*ibid.*, p. 43).

The extremely wealthy estates have tended to own the highest percentage of the wholly tax-exempt securities, not only for 1 year but for the last decade, as can be seen from table 35.⁴¹

TABLE 35.—*Amounts of certain investments in estates, tax returns, 1926-36*
108,503 estates, by size of net estate

[Dollar figures in thousands]

Item	No net taxable estate		Under \$50		\$50 to \$100	
	Amount	Percent	Amount	Percent	Amount	Percent
Returns	50,000	46.1	21,276	19.6	10,349	9.5
Federal bonds	\$131,992	10.4	\$108,310	8.5	\$78,637	6.1
Wholly exempt	22,285	3.7	17,749	2.9	17,123	2.8
Partially exempt	109,707	16.8	90,561	13.7	61,514	9.3
State and local bonds	75,947	4.2	68,491	3.7	54,870	3.0
All other bonds	292,094	12.3	279,519	11.8	205,526	8.7
Capital stock	1,128,026	8.2	972,873	7.1	757,557	5.5

Item	\$100 to \$1,000		Over \$1,000		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
Returns	23,821	22.0	3,054	2.8	108,503	100
Federal bonds	\$451,157	35.3	\$509,053	39.8	\$1,279,149	100
Wholly exempt	172,703	27.8	389,997	62.9	619,857	100
Partially exempt	278,454	42.2	119,056	18.1	659,292	100
State and local bonds	594,012	32.4	1,038,704	56.7	1,832,024	100
All other bonds	1,081,419	45.7	507,976	21.5	2,366,534	100
Capital stock	5,081,805	36.9	5,844,838	42.4	13,785,099	100

Source: Temporary National Economic Committee Monograph No. 20, Taxation, Recovery, and Defense, p. 193.

⁴¹ See also W. L. Crum, *The Distribution of Wealth*, Harvard Bureau of Business Research Study No. 13, Cambridge, 1935, especially p. 18, where he observes that "the growing preference of wealthy investors for wholly tax-exempt bonds is demonstrated" by an analysis of estate-tax returns for the years 1922-33.

A further clue to the ownership distribution of tax-exempt obligations may be gained from an analysis of estate-tax returns showing the proportion of this type of investment to the gross estate. Lutz, analyzing the returns from 1926 to 1936, estimated that the total wealth in the records of the Federal estate-tax collectors during this period probably constituted from one-fifth to one-fourth of the total that would be dealt with in a generation and distribution of the general ownership of wealth (H. L. Lutz, *Public Finance*, p. 117). The proportion of tax-exempts increases with size of estate, especially in the case of State and local bonds, where such bonds made up 2 percent of gross estates under \$50,000, but more than 10 percent of those over \$2,000,000. In estates over \$5,000,000 there was a curious variation in the ratio, which is probably explained by the small number of estates in the group. For example, State and local bonds made up 21.3 percent of gross estates in the 8 to 9 million dollar class but only 3.2 percent in the 9 to 10 million dollar class. (*Ibid.*, pp. 171-172).

In all estates up to \$1,000,000, Federal wholly exempt bonds made up 1.05 percent, Federal partially exempt bonds 2.46 percent, and State and local bonds 3.61 percent of the gross estate. In the estates over \$1,000,000, Federal wholly exempt bonds constituted 3.69 percent; Federal partially exempt bonds, 1.12 percent; and State and local bonds, 9.81 percent of the gross estate (*Ibid.*, p. 117).

Another analysis of estate-tax returns for 1930 and 1936, showing the percentage of tax-exempt securities owned to gross estates, arranged by sizes of net estates, indicates that in all classes except those over \$10,000,000, the proportion of tax-exempt securities owned was higher in 1936 than in 1930 (J. D. Magee, *The Proposal to Reduce High Surtaxes*, Law and Contemporary Problems, Duke University Law School, vol. 7, 1940, p. 188).

Private Debt.

The aggregate debt of individuals, unincorporated businesses, and corporate enterprises is usually divided into two broad categories—long-term debts, with a maturity of a year or more; and short-term debts, with a maturity of less than 1 year.⁴²

The volume of private long-term debt in 1937 amounted to 70.3 billion dollars. Of this total, railway funded debt accounted for 13.1 billion dollars; industrial corporation debt, 7.8 billion dollars; public utilities, 13.9 billion dollars; farm mortgage debt, 7.1 billion dollars; and urban mortgage debt, 28.5 billion dollars.⁴³ No recent estimates of the ownership of these debt categories are available except in the case of farm mortgages and urban mortgages secured by homes. A distribution of the farm mortgage debt by principal lender groups has been made by the Bureau of Agricultural Economics for the years 1910-39, while the Federal Home Loan Bank Board has compiled similar information on mortgages on urban homes for the period 1929-39. The best available estimates of the ownership of railroad, public utility, and industrial long-term debts are those of Horton for 1932 and 1933.

Farm mortgage debt.—Table 36 shows significant changes in the ownership of farm mortgage debt during the past three decades.

In 1910 one-fourth of the farm mortgage debt was held in almost equal shares by life insurance companies and commercial banks, while individuals and other lenders, not specified, held some three-fourths of the debt. By 1930, due to the establishment of the joint-stock land banks and the Federal land banks during 1917, the picture had changed significantly. Life insurance companies owned 21.9 percent of the total, commercial banks had dropped to 10.3 percent, and individuals and others to 49.0 percent. Joint stock land banks and Federal land banks had gradually increased their holdings so that by 1930 they held over 18 percent of the outstanding debt. During the thirties, the shares in a decreasing total held by the private lending agencies and by "individuals and others" on the whole declined, while the Federal land banks and the land bank commissioner held increasingly larger portions of the total.⁴⁴

By 1939 life insurance companies held 12.6 percent of the farm mortgage debt; commercial banks, 7.3 percent; the joint stock land banks, the Federal land banks, and the land bank commissioners, 39.7 percent; and individuals and others, 40.4 percent. Thus, in 1939, financial institutions owned about 20 percent of the debt, the joint stock land banks, the Federal land banks, and the land bank commissioners held nearly 40 percent, and individuals and others owned about 40 percent.⁴⁵ It is clear that the trend in the farm mortgage field has been away from individual investors and toward institutional lenders, including Government sponsored agencies.

⁴² The nature of the basic data employed for determining the aggregate private debt has resulted in wide variation in the available estimates. The size of the total depends largely upon the concepts and definitions employed. For example, it reflects the treatment of nominal debt, the size of the debtor unit, and the inclusion or exclusion of the "overlapping" debt of financial corporations. Nominal debt constitutes obligations held by the issuing corporations or within a group of corporations reporting as a unit and obligations nominally issued but not actually sold to bona fide purchasers (Donald C. Horton, *Long-Term Debts in the United States*, Government Printing Office, Washington, 1937, pp. 1-5).

⁴³ J. Wesley Sternberg, *Trends of Long-Term Debts in the U. S., 1934-37*, Survey of Current Business, January 1939. For further discussion of sources and definition, see Horton, *op. cit.*

⁴⁴ The joint stock land banks were in process of liquidation after May 1933.

⁴⁵ It is not possible to indicate what proportion of this latter amount is held by individuals alone, since all institutional lenders other than those specified have been included in this category.

TABLE 36.—Amount and percentage distribution of outstanding farm mortgage debt held by principal lender groups, 1910-39

[In millions of dollars]

Calendar year	Total amount outstanding	Life insurance companies		Commercial banks ¹		Joint stock land banks ²	
		Amount	Percent	Amount	Percent	Amount	Percent
1910	3,208	387	12.1	406	12.6	—	—
1920	8,449	975	11.5	1,204	14.3	60	0.7
1930	9,631	2,106	21.9	997	10.3	627	6.5
1935	7,786	1,259	16.2	499	6.4	256	3.3
1936	7,639	1,055	13.8	487	6.4	176	2.3
1937	7,390	936	12.7	488	6.6	134	1.8
1938	7,214	895	12.4	501	6.9	104	1.4
1939	7,071	887	12.6	519	7.3	87	1.2

Calendar year	Federal land banks ³		Land Bank Commissioners ³		Individuals and others	
	Amount	Percent	Amount	Percent	Amount	Percent
1910	—	—	—	—	2,415	75.3
1920	296	3.5	—	—	5,400	70.0
1930	1,186	12.3	—	—	4,715	49.0
1935	1,885	24.2	617	7.9	3,270	42.0
1936	2,060	27.0	794	10.4	3,067	40.1
1937	2,053	27.8	836	11.3	2,943	39.8
1938	2,025	28.1	812	11.3	2,877	39.9
1939	1,972	27.9	752	10.6	2,854	40.4

¹ For the years 1910-33, inclusive, this column relates to open State and national banks; for the years 1934 to 1939 the figures relate to insured commercial banks.

² Includes banks in receivership.

³ Excludes Puerto Rico.

Source: Bureau of Agricultural Economics. Hearings before the Temporary National Economic Committee, Part. 28, exhibit 2274, p. 15501.

Urban mortgage debt.—A compilation of the ownership distribution of mortgage debt outstanding on nonfarm one-to-four family dwellings for the years 1929-39 is shown in table 37. Among the institutional lenders, savings and loan associations, which held 32.4 percent of this class of urban mortgage debt in 1929, decreased their share during the depression. While some recovery was shown toward the end of the period, they accounted for only 21.5 percent of the total in 1939. There was some variation in the insurance company and mutual savings bank holdings over the 11-year period, but the relative shares held in 1939 were approximately the same as in 1929, or about 8 and 15 percent of the total, respectively. Commercial banks at the beginning of the period held 11.5 percent of the total. During the depression their share was drastically reduced, but by 1939 it had again risen to 9.8 percent. Although the amount held by individuals and others in 1939 was less than in 1929, their share in the total was relatively higher, shifting from 33.2 percent to 35 percent of the total. In 1933 the Home Owners' Loan Corporation entered the field to refinance distressed home mortgages, and although the expiration of its lending power has caused a gradual decrease in its share, it still owned over 11 percent of the debt in 1939.

TABLE 37.—*Amount and percentage distribution of outstanding mortgage loans on nonfarm 1- to 4-family dwellings by type of mortgage, 1929-39*

Type of Mortgagee	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Amounts (millions of dollars)											
Savings and loan associations	\$7,008	\$6,984	\$6,485	\$5,756	\$4,905	\$4,012	\$3,467	\$3,361	\$3,480	\$3,630	\$3,957
Insurance companies	1,731	1,844	1,899	1,835	1,767	1,547	1,415	1,358	1,343	1,320	1,490
Mutual savings banks	3,225	3,390	3,375	3,375	3,200	3,000	2,850	2,750	2,700	2,670	2,680
Commercial banks ¹	2,500	2,425	2,145	1,995	1,810	1,189	1,189	1,230	1,400	1,600	1,810
Home Owners' Loan Corporation											
Individuals and others ²	7,200	7,400	7,500	7,000	6,700	6,230	6,000	6,000	6,180	6,332	6,440
Total	21,664	21,953	21,404	19,961	18,486	18,157	17,818	17,462	17,501	17,721	18,420
Percentage distribution											
Savings and loan associations	32.4	31.8	30.3	28.8	26.5	22.1	19.5	19.2	19.9	20.5	21.5
Insurance companies	8.0	8.4	8.9	9.2	9.6	8.5	7.9	7.8	7.7	7.4	8.1
Mutual savings banks	14.9	15.0	15.8	16.9	17.3	16.5	16.0	15.7	15.4	15.1	14.5
Commercial banks ¹	11.5	11.0	10.0	10.0	9.8	6.5	6.7	7.0	8.0	9.0	9.8
Home Owners' Loan Corporation											
Individuals and others ²	33.2	33.8	35.0	35.1	36.2	42.2	46.3	45.8	43.7	42.2	41.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Does not include trust department of commercial banks.² Includes trust department of commercial banks, fiduciaries, real-estate, bond companies, title and mortgage companies, philanthropic and educational institutions, fraternal organizations, construction companies, The RFC Mortgage Company, etc.

Source: Figures secured from the Federal Home Loan Bank Board.

In 1939, therefore, financial institutions—the savings and loan associations, insurance companies, mutual savings banks, and commercial banks—owned about 55 percent of this class of urban mortgage debt, while individuals and others owned 35 percent, and the remainder, roughly 10 percent, was held by the Home Owners' Loan Corporation. The portion held by individuals alone is not ascertainable, but a Department of Commerce study on urban housing estimated that individuals held about 20 percent of first mortgage loans outstanding on owner-occupied residential properties on January 1, 1934.⁴⁶

In addition to mortgages on homes, the urban mortgage debt total includes mortgage debt secured by office, commercial, apartment, hotel, and other urban property which is owned by individuals and unincorporated enterprises, and the debts of those real estate mortgage corporations not included in the industrial classification. There is no information available on the ownership of this class of urban mortgage debt.⁴⁷

Corporate debt.—The Department of Commerce study conducted by Donald C. Horton shows the holdings of the funded debt of railways, public utilities, and industrial corporations by various investor groups for 1932 and 1933. In the case of railway debt, which totaled 9.4 billion dollars in 1932, about 27 percent of the amount outstanding was held by insurance companies, 20 percent by banks, 4 percent by public welfare foundations and educational institutions, 12 percent by individual trust accounts, and some 7 to 8 percent by railways other than the issuing company. The 30 percent unaccounted for was presumed to represent in large part direct investments by individuals, and foreign

⁴⁶ U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, *Financial Survey of Urban Housing*, 1937, p. xix.⁴⁷ Sternberg, loc. cit., p. 14.

holdings.⁴⁸ If the portion held in trust accounts is combined with the share attributed to individual holdings, roughly 42 percent of the railway funded debt was owned by individuals, directly or indirectly, and about 58 percent by institutional lenders.

Of the total outstanding public utility funded debt, which aggregated 15.1 billion dollars in 1932,⁴⁹ about 18 percent was held in personal trust accounts, 14 percent by life insurance companies, 10 percent by banks, 3 percent by public welfare and educational institutions, and 3 percent by utilities other than the issuing company. Over one-half the total is left unaccounted for, but "doubtless a large part of the remainder is held by individual investors."⁵⁰ Approximately 20 percent of the debt was thus held by institutions, including utilities other than the issuing company, and 80 percent in personal trust accounts and by individuals.

Because of lack of reliable data, Horton did not make similar estimates on the distribution of ownership of industrial funded debt.⁵¹ However, he made rough approximations on the basis of existing information which indicated that, of the outstanding debt in 1933, some \$1,350,000,000 of industrial mortgages were "held largely by financial institutions," while the remainder in industrial bonds and notes was distributed as follows: Insurance companies, \$420,000,000; banks, \$950,000,000; trust institutions, \$900,000,000; public welfare foundations, \$200,000,000; and other industrial corporations, \$900,000,000. This accounts for little more than half the total industrial debt, so that "a large part of the total debt is held by individuals and agencies not discussed above."⁵²

Long-term private debt.—The concentration of debt-holdings by life insurance companies is shown in table 38.

TABLE 38.—Percentage of total long-term debts of various classes held by 26 life insurance companies

Debt class	1930	1934	1937
Public debt:			
Federal	2.1	6.1	11.6
State and local	3.0	5.0	6.7
Total	2.5	5.6	9.9
Private debt:			
Railroad	18.1	17.6	17.4
Industrial	2.5	4.0	11.7
Public utility	10.5	12.3	18.2
Farm mortgage	19.2	14.1	10.5
Urban mortgage	12.7	12.8	13.0
Total	12.6	12.7	14.4
Total long-term debt	9.8	10.0	12.4

Source: Hearings before the Temporary National Economic Committee, Part 28, exhibit 2259, p. 15493.

Some idea of the extent of concentration in ownership of private long-term debt within the various groups discussed may also be obtained from information on interest receipts from debt holdings by individuals and corporations. The tables presented here are compiled

⁴⁸ "No data are included for bonds held by religious institutions, charitable organizations, and the large group of miscellaneous investors such as fraternal organizations and learned societies. It is improbable that these groups held a large part of the remaining 30 percent not accounted for." (Horton, op. cit., p. 53.)

⁴⁹ Estimate was based on consolidated balance sheets, so that the aggregate is inflated to some extent. See Sternberg, loc. cit., footnote, p. 10.

⁵⁰ Horton, op. cit., p. 76.

⁵¹ Ibid., p. 110.

⁵² The aggregate, estimated to be about \$9,260,000,000, is probably somewhat exaggerated, since it is based on consolidated returns filed with the Bureau of Internal Revenue. (Ibid., pp. 104-105.)

from individual and corporation income tax returns, and from estate tax returns filed for decedents as presented in the Statistics of Income for 1937.

The data presented in table 39 show a pronounced degree of concentration of ownership of taxable interest income by corporations, since the amount of interest increases with the size of the asset class, while the number of corporations in each class diminishes.

Fifty-five percent of the reporting corporations showed assets under \$50,000, but they received only six-tenths of 1 percent of the total taxable interest. On the other hand, corporations with assets over \$100,000,000, representing but one-tenth of 1 percent of the number reporting, received over 50 percent of the total interest income. Moreover, the largest 10 percent of the corporations—those in the asset

TABLE 39.—*Taxable interest received by all corporations¹ submitting balance sheets, by asset classes, for the year 1937*

Asset class	Number	Per- cent of total	Cumulative percentages		Amount	Per- cent of total	Cumulative percentages	
Under \$50,000	228,721	55.0	55.0	100.0	\$15,366,000	0.6		
\$50,000 and under \$100,000	60,238	14.4	69.4	45.0	18,312,000	.7	0.6	100.0
\$100,000 and under \$250,000	58,817	14.1	83.5	30.6	53,495,000	2.1	1.3	99.4
\$250,000 and under \$500,000	27,992	6.7	90.2	16.5	77,325,000	3.0	3.4	98.7
\$500,000 and under \$1,000,000	17,587	4.2	94.4	9.8	106,072,000	4.1	6.4	96.6
\$1,000,000 and under \$5,000,000	17,897	4.3	98.7	5.6	333,635,000	13.0	10.5	93.6
\$5,000,000 and under \$10,000,000	2,620	.6	99.3	1.3	148,552,000	5.8	23.5	89.5
\$10,000,000 and under \$50,000,000	2,281	.5	99.8	.7	326,650,000	12.8	29.3	76.5
\$50,000,000 and under \$100,000,000	355	.1	99.9	.2	161,295,000	6.3	42.1	70.7
\$100,000,000 and over	394	.1	100.0	.1	1,316,722,000	51.6	48.4	57.9
Total	416,902	100.0			2,557,464,000	100.0	100.0	51.6

¹ Finance companies accounted for 87.0 percent of the taxable interest received by all corporations.

Source: U. S. Treasury Department, Statistics of Income for 1937, Part II, pp. 80-81.

classes above \$500,000—received about 94 percent of the total interest income.

The available information concerning ownership of private debt directly by individuals shows less concentration among the extremely wealthy classes.

Interest receipts from bank deposits, notes,⁵³ mortgages, and corporation bonds, as reported by individuals on income tax returns in 1937, are shown in table 40. This shows nearly 90 percent of the total number reporting taxable interest receipts had incomes below \$5,000, and accounted for 50 percent of the interest received. The wealthiest individuals, with incomes over \$100,000, who comprised about one-tenth of 1 percent of the number reporting, accounted for 3.2 percent of the total interest received. The greatest degree of concentration seems to exist in the moderately wealthy group with incomes ranging from \$5,000 to \$100,000, composing 11.0 percent of the number and receiving 46.9 percent of the taxable interest reported.⁵⁴

⁵³ Interest on bank deposits and notes is included here only because there is no way to separate it from that on mortgages and corporation bonds. Although bank deposits are debts owed by the banks to their depositors, from the individual depositor's point of view they are savings. Notes are evidences of debt owned but are usually included in short-term debt.

⁵⁴ The inclusion of bank deposits in this category probably accounts for the relative concentration of interest income received by the income class under \$5,000.

TABLE 40.—*Taxable interest received by individuals from bank deposits, notes, mortgages, and corporation bonds, by net income classes, 1937*

Net income class	Returns		Taxable interest received	
	Number	Per- cent of total	Amount	Per- cent of total
Under \$5,000 (estimated)	5,645,115	88.9	\$430,426,000	49.9
\$5,000 and under \$10,000	471,171	7.4	149,094,000	17.3
\$10,000 and under \$25,000	178,446	2.8	148,652,000	17.2
\$25,000 and under \$50,000	38,948	.6	69,132,000	8.0
\$50,000 and under \$100,000	12,318	.2	38,179,000	4.4
\$100,000 and under \$150,000	2,269	(2)	10,530,000	1.2
\$150,000 and under \$300,000	1,358	(2)	8,474,000	1.0
\$300,000 and under \$500,000	312	(2)	3,240,000	.4
\$500,000 and under \$1,000,000	162	(2)	2,167,000	.3
\$1,000,000 and over	49	—	2,455,000	.3
Total	6,350,148	100.0	862,349,000	100.0

¹ Includes taxable interest received on partially tax-exempt Government obligations.

² Less than one-half of 1 percent.

³ The number of all returns over \$100,000 constitutes about 1 percent of the total.

Source: U. S. Treasury Department, Statistics of Income for 1937, Part. I, p. 13.

Similarly, from estate tax returns it can be seen that the bulk of mortgages, notes, and cash⁵⁵ is owned by the estate classes under \$500,000, as shown in table 41. These estates comprised 95 percent of the number reporting and they owned nearly 80 percent of the amount reported.⁵⁶

Table 42 shows that estates under \$100,000, constituting 64 percent of the total number of estates, owned 24.2 percent of the nonpublic funded debt. The 4,105 estates in the \$100,000-\$500,000 estate class,

TABLE 41.—*Distribution of ownership of mortgages, notes, and cash by individuals in various net estate classes, 1938¹*

Net estate classes ²	Total estates		Mortgages, notes, and cash	
	Number	Percent of total	Value	Percent of total
Under \$100,000	8,462	64.0	\$152,391,000	38.3
\$100,000 and under \$500,000	4,105	31.1	156,390,000	39.3
\$500,000 and under \$1,000,000	384	2.9	34,987,000	8.8
\$1,000,000 and under \$2,500,000	202	1.5	36,613,000	9.2
\$2,500,000 and under \$5,000,000	43	.3	9,330,000	2.5
\$5,000,000 and under \$10,000,000	17	.1	4,664,000	1.2
\$10,000,000 and over	7	.1	2,714,000	.7
Total	13,220	100.0	397,691,000	100.0

¹ Based on estate tax returns filed during the calendar year 1938.

² After authorized deductions for estate, inheritance, legacy, or succession taxes paid to any State or Territory or the District of Columbia, and for the Federal gift tax, but before specific exemption of \$40,000.

Source: Based on U. S. Treasury Department, Statistics of Income for 1937, pp. 54-61.

⁵⁵ It is impossible in these data to separate the holdings of mortgage indebtedness from holdings of notes and cash.

⁵⁶ A study of estate tax returns for the period 1923-33 revealed that "mortgages, notes, and cash constitute a much larger portion of total gross estate for the smaller-size classes than the large." (W. L. Crum, *The Distribution of Wealth*, p. 19.)

or 31 percent of the total, held the largest block of debt, their share amounting to almost one-half the total. Estates over \$500,000 accounted for 4.9 percent of the number, and owned some 29 percent of this type of debt. It should be noted, however, that the average holdings tend to increase by size of estate.⁵⁷

TABLE 42.—*Distribution of ownership of nonpublic funded debt by individuals in various net estate classes, 1938*

Net estate classes ¹	Total estates		Nonpublic funded debt ²	
	Number	Percent of total	Value	Percent of total
Under \$100,000	8,462	64.0	\$45,589,000	24.2
\$100,000 and under \$500,000	4,105	31.1	88,234,000	46.8
\$500,000 and under \$1,000,000	384	2.9	24,310,000	12.9
\$1,000,000 and under \$2,500,000	202	1.5	19,981,000	10.6
\$2,500,000 and under \$5,000,000	43	.3	4,727,000	2.5
\$5,000,000 and under \$10,000,000	17	.1	3,469,000	1.8
\$10,000,000 and over	7	.1	2,240,000	1.2
Total	13,220	100.0	188,550,000	100.0

¹ After authorized deductions for estate, inheritance, legacy, or succession taxes paid to any State or Territory or the District of Columbia, and for the Federal gift tax, but before specific exemption of \$40,000. Based on estate tax returns filed during the calendar year 1938.

² Reported as "all other bonds" in the Statistics of Income.

Source: Based on U. S. Treasury Department, Statistics of Income for 1937, Part I, pp. 54-61.

Short-term private debt.—The only available data on short-term debts are Nugent's estimates of the amount of consumer debt held by major classes of creditors.⁵⁸ In 1937 this consumer debt aggregated \$8,326,000,000. Of this amount retail merchants owned \$3,818,000,000 in the form of receivables. Service creditors, such as physicians, dentists, hospitals, and public utility companies, owned \$557,000,000 of the debt. Intermediary financing agencies, or those agencies which purchase receivables from agencies which initiate credit sales, accounted for \$2,173,000,000, while cash-lending agencies owned \$1,778,000,000 of the total.

OWNERSHIP OF REAL ESTATE

The largest element in the total physical wealth of the United States is real estate, which is composed of land and the improvements built upon the land. The privately owned portion represents the holdings of individuals, unincorporated businesses, and corporate enterprises. The public and semipublic holdings include real estate owned by governmental bodies as well as private institutions of a semipublic character. According to a preliminary estimate for 1937, the aggregate value of all categories of real property was estimated to be \$171,000,000,000, or about 53 percent of the estimated total national wealth of \$322,000,000,000 for that year. The taxable or privately owned real property alone amounted to \$145,000,000,000, while the tax-exempt, or public and semipublic property, was valued at about \$26,000,000,000.⁵⁹

⁵⁷ Crum, op. cit., p. 20. See table entitled "Average Holdings per Return in Each Size Class, for the Years 1922-33."

⁵⁸ Rolf Nugent, *Consumer Credit and Economic Stability*, Russell Sage Foundation, New York, 1939, p. 116.

⁵⁹ National Industrial Conference Board, *Studies in Enterprise and Social Progress*, New York, 1939, pp. 59-61.

Real property, and particularly land, as a factor of production, is vastly more important for some enterprises than for others. While land constitutes a part of the capital equipment of all enterprises, it obviously plays a much more important role in agriculture. The remainder of the discussion is devoted to a brief survey of farm land ownership in the United States.

Mechanization of Farm Operations and the Increase in Tenancy.

The drastic change in the ownership pattern in American agriculture since the frontier period of settlement can be seen from the increase in tenancy in almost all farm areas, and the appearance of large quasi-industrial farm enterprises. In 1880 tenants operated 25.6 percent of all farms, while in 1910 the figure had risen to 37 percent, and in 1935 to 42 percent.⁶⁰

In recent years the increase in the use of farm machinery has exercised a strong pressure toward expansion of farming operations, which has tended to increase the number of large landholdings at the expense of other farm owners and tenants. Furthermore, mechanization has tended to force displaced owners from the better lands to uneconomic subsistence agriculture in the poorer areas. Those who are dispossessed altogether have become a part of an agricultural proletariat which must seek employment in those areas where farming processes have not become completely mechanized.⁶¹

Displacement of farm families has taken place in the Corn Belt, as well as in the Cotton and Wheat Belts.

It has appeared in the Arkansas delta and the Missouri boot heel, in the onion fields of Hardin County, Ohio, where industrialized agriculture is conspicuous, in the potato fields of southern New Jersey, the pea fields of Idaho, the cotton fields of Arizona, in California, and in the orchards of Yakima Valley, Wash.⁶²

The development of large-scale processing industries has also affected concentration in the ownership of farm lands. For example, the California Packing Corporation owns and operates some 20,000 acres of farm land in California valued at \$9,000,000. The corporation leases and operates an additional 47,000 acres in Illinois, Hawaii, and the Philippine Islands. American Fruit Growers, Inc., another Nation-wide shipping and brokerage firm, owns some 15,000 acres of farm land in 10 States, of which 2,500 were planted with citrus fruits, grapes, and vegetables in California.⁶³

While the increase in tenancy may not directly measure the extent of concentration of ownership of farm lands, it does mean that an increased number of small landholders, once displaced or reduced to a tenant status, will find no opportunity to regain their ownership position. The process of concentration is occurring at a time when virtually all the better lands are already under cultivation.

Increase in the Holdings of Financial Institutions.

The decline in agricultural income after 1929 and the drought of the middle thirties caused widespread mortgage foreclosures and transfers of land because of tax delinquencies. Thus, the real estate holdings of institutional lenders and governmental units have increased tremendously, at the expense of individual owners. No national data are available on the extent of land transfers through tax deeds, but

⁶⁰ Bureau of the Census, United States Census of Agriculture, 1935, vol. III, p. 107.

⁶¹ Hearings before the Temporary National Economic Committee, Part 30, Technology and Concentration of Economic Power, pp. 17042-17043.

⁶² Ibid., p. 17068.

table 43 shows the value of farm real estate held by the leading lending agencies from 1929 to 1939.

TABLE 43.—*Farm real estate held by leading lending agencies, Jan. 1, 1929–39*

[In thousands of dollars]

Year	Federal land banks and Federal Farm Mortgage Corporation ¹	Life insurance companies ²	Joint-stock land banks ³	All active insured commercial banks ⁴	3 State credit agencies ⁵
1929	26,478	88,305	15,236	(6)	19,540
1930	29,517	120,020	19,685	(6)	26,860
1931	36,931	151,229	22,202	(6)	33,511
1932	53,658	219,947	37,957	(6)	39,008
1933	83,336	316,931	71,741	(6)	47,454
1934	96,774	465,072	85,740	(6)	56,094
1935	96,780	600,873	81,700	(6)	60,270
1936	120,091	646,280	78,202	7 74,166	61,531
1937	135,178	713,166	72,781	69,525	68,444
1938	132,288	705,207	62,030	56,311	72,040
1939	139,440	702,861	53,885	49,143	73,301

¹ Investment, including sheriffs' certificates and judgments. Excluding prior liens.

² Investment—partially estimated.

³ Carrying value of real estate, including sheriffs' certificates and judgments. Real estate held by banks in receivership included at book value.

⁴ Book value.

⁵ Investment. Rural Credit Board of South Dakota, Bank of North Dakota, and Department of Rural Credit of Minnesota.

⁶ Data unavailable.

⁷ June 30.

Source: Hearing before the Temporary National Economic Committee, Part 23, exhibit 2280, p. 15506.

Life insurance companies account for a predominant share of the farm property held by the lending agencies. Their holdings at the end of 1938 were more than double the amount held by all the other agencies combined.

The 26 largest life insurance companies owned farm real estate valued at \$529,000,000. Thus, these companies alone owned more than one and one-half times the amount held by the other lending agencies.⁶⁴

Large-scale Farming in the United States.

Although farm ownership today can be generally characterized as shifting from the "family-size" type of farm, owned and operated by a resident farmer, to the manager-laborer type of large-scale farming, it is impossible to determine the extent of concentration in large land-holdings.

The last available statistics on farm operations were gathered by the Bureau of the Census in 1930. These data, however, are compiled for operating units rather than for all farm lands held by a single owner or a single legal entry.

A farm is defined for census purposes as all the land which is directly farmed by one person (or partnership) either by his own labor alone or with the assistance of members of his household or hired employees. Farms operated in this fashion may include owned as well as rented land. But when a landowner turns over the operation of his land to one or more tenants, renters, or managers, the land operated by each is considered a farm.⁶⁵

Even on the basis of the census data described above, a study made of large-scale farming in the United States in 1929⁶⁶ indicated that

⁶⁴ Ibid., p. 17062.

⁶⁵ See Hearings before the Temporary National Economic Committee, Part 10—A, Life Insurance, p. 180.

⁶⁶ Fifteenth Census of the United States, 1930, Agriculture, vol. I, p. 1.

R. D. Jennings, *Large-scale Farming in the United States, 1929*, Fifteenth Census of the United States, 1930, Agriculture, Washington, 1933.

there were 7,875 farms whose value of products was \$30,000 or over. These were distributed in various regions of the country as follows:⁶⁷

New England and Middle Atlantic.....	779
North Central.....	862
South Atlantic and East South Central.....	810
West South Central.....	962
Mountain.....	1, 124
Pacific.....	3, 338

It can be seen that large-scale operations were particularly characteristic of the West South Central, Mountain, and Pacific States.

Table 44 indicates that while large-scale farms constituted only one-half of 1 percent of all farms in the Mountain region, they accounted for 17.2 percent of all land in farms of that region, 6.8 percent of the

TABLE 44.—*Farms with product value over \$30,000, as percentage of all farms, in various regions, 1929*

Region	Number of farms	Acres of land in farms	Acres of cropland harvested	Value of land and building	Expenditure for hired labor	Value of all products sold
	Percent	Percent	Percent	Percent	Percent	Percent
New England and Middle Atlantic.....	0.2	0.7	0.8	2.1	9.0	4.1
North Central.....	(1)	1.2	.5	.5	2.2	1.5
South Atlantic and East South Central.....	(1)	.7	.6	2.2	7.2	1.9
West South Central.....	.1	13.3	1.1	4.9	8.7	4.5
Mountain.....	.5	17.2	3.6	6.8	18.0	10.9
Pacific.....	1.3	18.2	13.5	15.4	29.0	21.1
Washington and Oregon.....	.4	11.0	5.5	4.9	13.7	7.5
California.....	2.1	25.4	21.4	19.8	34.6	28.5
United States.....	.1	6.9	1.3	3.2	11.0	4.5

¹ Less than $\frac{1}{10}$ of 1 percent.

Source: R. D. Jennings, *Large-Scale Farming in the United States, 1929*. Fifteenth Census of the United States, 1930, Agriculture, Washington, 1933, pp. 24-25.

total value of land and buildings, 18 percent of all expenditures for hired labor, and 10.9 percent of the values of all products sold.

Large farms are prevalent throughout the Pacific States, but they are predominant in California. Although the State had only 2.2 percent of all farms in the United States,⁶⁸ it had 3,338 (36.7 percent) of the 7,875 large farms (product value over \$30,000). According to table 24, 2.1 percent of the farms in California containing 25.4 percent of all farm land, accounted for 21.4 percent of all acreage harvested, received 28.5 percent of the value of all farm products, and paid 34.6 percent of all wages paid for farm labor in the State.

The apparent predominance of large landholdings in the Mountain and Pacific Coast States shown in this study is no doubt due in part to the exclusion of tenant- and cropper-operated areas, particularly in the South. Another study completed in 1933, employing a somewhat different definition of a large-scale farm⁶⁹ and including a wide variety of farm tenure, indicated that, with the exception of California, the largest numbers of large-scale farms were located in the Eastern and Southern States.⁷⁰

⁶⁷ Ibid., p. 21.

⁶⁸ G. Alvin Carpenter, *Farm Size in California*, Bureau of Agricultural Economics, Berkeley, Calif., 1940, p. 27.

⁶⁹ D. Curtis Mumford, *Large-Scale Farming in the United States*, Bureau of Agricultural Economics, Washington, 1938.

⁷⁰ "A large-scale" farm was defined as a single farm or a group of farms under one closely controlled and supervised management, if the size of its total farm business was at least five to eight times as large as the typical farm business in the same locality producing the same kinds of products (ibid., p. 2).

⁷¹ Ibid., pp. 7-9.

Of the 1,116 farms studied in this survey, 53.9 percent were owned by individuals, 25.4 percent by corporations, 17.7 percent by partnerships, and 3.0 percent by estates, trusts, and combinations of the above-mentioned categories of ownership. These were farms actually in operation, and the corporate holdings do not reflect the ownership of financial institutions holding lands for resale. Corporate ownership was found to be most frequent in the Mountain and Pacific States.⁷¹

*Plantations in the South.*⁷²—The plantation area of the South has traditionally been characterized by concentration of ownership of large tracts of land. However, changes have occurred in the size of plantations since the Civil War.⁷³

Up to about 1910 there was a disintegration of the extremely large plantations (many of these were over 1,000 acres) and an increase in the number of smaller "family-sized" farms. In a study made of 20 Georgia plantation counties, tracts of 260 acres or more (which constituted 38 percent of all tracts in 1873) were found to be 16 percent of the total in 1934. Most of these changes took place between 1873 and 1902, but there was a steady decline in the average size of agricultural proprietorships, from 343 acres in 1873 to 185 acres in 1934.⁷⁴ In 38 selected counties in North Carolina, Georgia, and Mississippi in the same year, 12 percent of the proprietorships were 260 acres and over, 53 percent were between 50 and 260 acres, and 35 percent were below 50 acres.⁷⁵

In recent years, however, recurrent agricultural crises have greatly increased tenancy at the expense of ownership among the small farm operators. While the large landowners have reduced their debts, expanded their acreage and investments, and increased their incomes, small farm owners have been forced off the better land or reduced to the status of tenant or sharecropper. Many of those already in the latter class have been displaced altogether from the farm economy of the South.⁷⁶

Large landholdings have persisted most markedly in the areas adapted to large-scale cotton production. In addition to the ownership of large acreages of the best land in these areas, plantation owners have acquired, through rental or purchase, additional lands in other parts of the South. A survey made in 1937 of the 38 counties studied in 1934 showed that if rented lands and purchases of noncontiguous tracts were included, the average size of plantations increased from 955 acres in 1934 to 1,014 in 1937.⁷⁷ In 1934, 39 percent of the landlords reported owning other farms with an average of 2.9 other farms per multiple owner.⁷⁸

From 1910 to 1923 large areas in the South were progressively laid waste by the boll weevil, with the result that banks, insurance com-

⁷¹ *Ibid.*, pp. 22-23.

⁷² For a more adequate discussion of land ownership in the South, see T. J. Wooster, Jr., et al., *Landlord and Tenant on the Cotton Plantation*, Works Progress Administration, Research Monograph V, Washington, 1936, especially pp. 15-24; *Work Projects Administration, The Plantation South Today*, Social Problems Series No. 5, Washington, 1940, pp. 1-7; and William C. Holley, Ellen Winston, and T. J. Wooster, Jr., *The Plantation South, 1934-37*, Work Projects Administration, Research Monograph XXII, Washington, 1940.

⁷³ T. J. Wooster et al., *Landlord and Tenant on the Cotton Plantation*, p. xix.

⁷⁴ *Ibid.*, p. 17.

⁷⁵ *Ibid.*

⁷⁶ See *Work Projects Administration, The Plantation South Today*, pp. 7-8.

⁷⁷ *Ibid.*, p. 8.

⁷⁸ T. J. Wooster et al., *Landlord and Tenant on the Cotton Plantation*, pp. 20-21. It is interesting to note the method of acquisition of the original plantation tracts. Of the 631 planters studied in 1934, 186 acquired their first tract by inheritance, 5 by marriage, 21 by foreclosure, 357 by purchase, and 62 by renting. Only 21 percent of the acreage surveyed had been acquired before 1910, while 41 percent had been acquired since 1925, and 21 percent had been held less than 5 years. (*Ibid.*)

panies, and mortgage companies took over by foreclosure vast acreages in holdings scattered throughout the plantation belt. The depression of the 1930's added still more foreclosures, so that by 1934 a large number of tracts was held by financial corporations. The sample study of 38 counties in 1937 indicated that about 10 percent of the land was corporate-owned. In some counties the proportion of corporation-held land was as high as 20 percent of the total acreage.⁷⁹

OWNERSHIP OF HOMES

The census of 1930 indicated that about 14,000,000 homes, or 48 percent, were owner-occupied, out of a total of a little more than 29,000,000 farm and urban homes in the United States. Of the 22,850,000 urban homes, 46 percent were owned and 54 percent rented, while of the 6,290,000 farm homes 57 percent were owned and 43 percent rented.⁸⁰ These data, however, do not reflect the number of homes lost through mortgage foreclosures and tax sales during the depression years.

Even at the end of 1938 the total value of repossessed residential real estate held by financial institutions and individuals alone was estimated to be well above \$4,000,000,000.⁸¹

Table 45 shows the value of one- to four-family dwellings owned by selected financial institutions on December 31, 1938.

TABLE 45.—*Estimated admitted holdings of residential properties by selected financial institutions, Dec. 31, 1938*

Type of lending institution:	Amount (millions)
Savings and loan associations ¹ -----	\$950
Mutual savings banks ² -----	500
Commercial banks ² -----	315
Life insurance companies ³ -----	576
Home Owners' Loan Corporation-----	489
Total-----	2,830

¹ Estimate based on reports received by the Federal Home Loan Bank Board.

² Estimates based on the reports of the Comptroller of the Currency and the Federal Deposit Insurance Corporation. The estimate for commercial banks excludes trust departments.

³ Estimate of the Federal Home Loan Bank Board based on a questionnaire survey of the largest life insurance companies.

Source: Federal Home Loan Bank Board, Annual Report, 1939, p. 28.

The studies on consumer incomes and expenditures of the National Resources Committee indicate that homes owned by individuals have by no means been equally distributed among the various income classes. Table 46 shows that in 1935-36, an increasing proportion of the families owned homes as the family income level increased. While the table describes urban families only, essentially the same pattern of ownership is discernible for rural nonfarm and farm families, except that in the case of the last two groups a larger percentage of the families in all income groups owned homes.⁸²

⁷⁹ Idem.

⁸⁰ Bureau of the Census, Statistical Abstract, 1939, pp. 50-55.

⁸¹ Federal Home Loan Bank Board, Annual Report, 1939, p. 28.

⁸² See forthcoming publication by the National Resources Planning Board, Family Expenditures in the United States.

TABLE 46.—*Proportion of urban families¹ owning and renting homes, by income level, 1935-36*

Income level	Percent owning	Percent renting	Income level	Percent owning	Percent renting
Under \$500	20.9	79.1	\$1,750 to \$2,000	36.9	63.1
\$500 to \$750	21.4	78.6	\$2,000 to \$2,500	43.7	56.3
\$750 to \$1,000	21.3	78.7	\$2,500 to \$3,000	50.5	49.5
\$1,000 to \$1,250	27.5	72.5	\$3,000 to \$4,000	54.0	46.0
\$1,250 to \$1,500	31.0	69.0	\$4,000 to \$5,000	59.3	40.7
\$1,500 to \$1,750	33.5	66.5	\$5,000 to \$10,000	63.8	36.2

¹ Excludes families receiving any direct or work relief at any time during year. Data also pertain only to those families who maintained the same tenure, either as renters or owners, throughout the entire schedule year.

Source: Preliminary figures released to the Temporary National Economic Committee from forthcoming publication of the National Resources Planning Board on Family Expenditures in the United States.

About 20 out of every 100 urban nonrelief families with incomes below \$1,000 owned homes, while about 64 out of every 100 families in the \$5,000-\$10,000 income level were home owners. If city families on relief were also included in the lowest-income groups, obviously the proportion of the total which could claim home ownership would be even smaller.

Moreover, very few homes currently constructed are available to low-income families. Only 19 percent of the homes constructed under the Federal Housing Administration mortgage insurance plan cost less than \$4,000. Thus only a small proportion of the new housing was available to the 76 percent among the nonfarm families whose incomes were less than \$2,000. But more than 80 percent of the homes constructed cost more than \$4,000, and were consequently available only to the 24 percent of the families whose incomes were \$2,000 or more.⁸³ In 1939 families with annual incomes below \$1,500 constituted only 4 percent of all families who built homes under the F. H. A. plan.⁸⁴

Even among the families who are at present homeowners, there are many whose properties are not debt free. Equity ownership of home property among those in the low-income groups is likely to be of an illusory character, if prior claims by creditors cannot be met. The status of the low-income mortgagor of home property is similar to that of the holder of industrial insurance, discussed in a previous section. In each case, if payments are lapsed, the ownership claim is lost.

⁸³ Temporary National Economic Committee Monograph No. 8, *Toward More Housing*, pp. 26-27.

⁸⁴ Sixth Annual Report of the Federal Housing Administration, 1939, p. 64.

CHAPTER IX

CONCENTRATION OF SAVINGS¹

Gross saving is the difference between current income and current expenditures, whether for an individual, a family, a nonprofit organization, a business, or a government. Subtracting from gross saving depreciation, obsolescence, and other charges necessary to keep the body of one's capital unimpaired, one has net savings. This chapter deals primarily with gross savings, for two reasons. In the first place, net savings are more difficult to estimate, either for individuals or for businesses. Most individuals and families either keep no accounts, or limit themselves to itemizing cash income and cash outgo. Also, there is little uniformity in business practice as to the proper charges for obsolescence and depreciation.

Furthermore, gross saving is the more important figure, so far as the flow of national income and the level of economic activity are concerned. It states how much is being subtracted from the current flow of national income—how much is not being spent for consumption goods. It states how much must be spent on other than consumption goods if the level of national income is to be maintained. It states how much is available for that new (gross) investment which maintains and expands productive capacity and modifies the structure of the economy.

These sums are substantial. In good years the gross savings of nonfinancial business enterprises range from 5.5 billion dollars (in 1927 and 1937) to 7.4 billion dollars (in 1929), and account for 35 percent of all gross saving.² The bulk of this business saving is invested directly, and never passes through the capital markets.

Governmental savings, too, are substantial. Governments save that part of their revenue which exceeds current expenditure. Some of this gross saving goes into public construction, that is, is invested directly; governments transfer the balance to others in the community. The transfer is effected through retirement of the public debt; through purchases for the account of sinking, trust, and investment funds; or through building up bank balances. From 1921 through 1929 all governments—Federal, State, and local—spent an average of \$2,000,000,000 per year for construction. If we add to this the average annual cash debt retirement by the Federal Government (\$280,000,000) and subtract the increase in debt of the State and local governments (\$800,000,000), we get a figure for gross savings of all

¹This chapter was originally written by Dr. Oscar L. Altman, senior economist, National Resources Planning Board. It was revised by Dr. Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University.

²Hearings before the Temporary National Economic Committee, Part 9, Savings and Investment, exhibit No. 586, p. 4041.

governments of about 1.5 billion dollars per year.³ Most of this saving was invested directly.

THE PROBLEMS OF HOARDING AND BANK CREDIT

Whether savings are invested or are siphoned into consumption is not important to the continuity and flow of the income stream. So long as savings are absorbed—that is, finally reach the hands of laborers and others who spend them—the levels of employment and national income are not materially affected.

But savings may be hoarded. They may be put in a mattress, a safe deposit box, or an idle bank balance. Whatever the form, hoarding breaks the flow of the income stream. According to Lauchlin Currie:

If we think of the national income as a stream of goods and services, all represented by their dollar equivalents, we can take the next step and consider the factors that tend to keep the stream going uninterruptedly, and the factors that tend to obstruct and divert the stream. When a person earns wages and spends them for living expenses as rapidly as he receives them, there is no interruption. When a corporation takes in money in exchange for the goods it produces and disburses it at the same rate for wages, materials, power, and dividends, there is no interruption.

When, however, a part of the wages received or of money realized for sales is not disbursed but is retained by the individual either in the form of cash or of deposits, or is used to pay off debts, or even if it is invested in securities, there may be an interruption in the even flow of the money stream. Whether there is or is not depends on whether the money thus withdrawn is kept idle, or hoarded, or whether it is returned to the stream through disbursement for new plant and equipment, or for renovation or enlargement of existing plant, or offset by the expenditure of an equal amount.⁴

If savings are not returned to the income stream, if they are hoarded, the community's expenditure for consumption and investment is reduced, and the decrease in expenditures makes it impossible to sell the output at current prices.

Hoarding may easily have serious consequences for the functioning of the economy. Business enterprises have to reduce prices, or output, or both. Employment is curtailed. The rate of operations is decreased. Many of the persons who are currently saving—whether their savings are being invested or hoarded—find that with the changed conditions their income falls. As their income drops, their savings are either curtailed or take a larger amount of income away from the amount devoted to consumers goods. Savings decreases both in dollar amount and in proportion to national income. The reasons for this are clear. Profits decline or turn into losses; the incomes of wage and salary workers are reduced. Unemployed workers, and bankrupt and other business enterprises are forced to sell their possessions, thus absorbing a good part of the savings of more fortunate individuals. Many people go into debt to pay for food, rent, clothing. Hence the amount of new saving decreases, while an increasing amount of new saving is canceled by drawing upon old saving. The process of contraction, in other words, is not a voluntary one. It will, in fact, continue until the whole community has reduced its saving to an amount that can currently be absorbed. Thus depression forces people to reduce their saving by the poverty and distress it creates.

There is always a certain amount of hoarding in the community.

³ Temporary National Economic Committee Monograph No. 37, *Saving, Investment, and National Income*, by Oscar L. Altman, pp. 24-25.

⁴ Hearings before the Temporary National Economic Committee, Part 9, pp. 3521-3522.

There is always a certain amount of income which for the time being is subtracted from current income. Yet the community has frequently operated at very high levels of employment and output. There are two explanations for this. In the first place, the importance of hoarding changes greatly according to the stage of the business cycle. At some stages it may be negligible, or it may be more than offset by more rapid spending. But the second, and more important factor is the creation of new money by the banking system. Some individuals may have been reducing the net income stream by hoarding, but others were swelling it by persuading the banks to create new money for them.

In some periods hoarding is offset by the creation of new money. The income stream remains unchanged, and except for minor dislocations, the economic machine continues to operate at its current level. But bank credit and hoarding do not usually maintain such a nice balance. When bank credit increases, during the upswing, it tends to be greater than hoarding. Then the income stream swells, and the level of economic activity rises. Here it is precisely the creation of new money which makes it possible for hoarders to subtract current purchasing power without throwing the economic machine into low gear.

But the community pays dearly for its bank credit supercharger. This supercharger is erratic. On the one hand, it may accelerate the climb into a stratosphere of inflation; on the other, and more important, it throws deflation into a power dive. For the bank credit mechanism may, and in periods of downswing does, reinforce hoarding. Part of the current income stream is diverted to pay off bank loans, and the supply of money decreases. The balance of current income cannot take all the currently produced output off the market at current prices. Prices fall. Output decreases. Credit requirements become increasingly stringent. The first cycle is repeated; and the economic recession becomes a rout.

It is impossible here to go into an exhaustive discussion of the role of bank credit;⁵ it is sufficient for our purposes to indicate that the creation of new money may offset hoarding in some periods, increasing the income stream, and stimulating investment. At other times it acts with economic perversity to reinforce the effects of hoarding. By decreasing the income stream, and particularly the savings segment, it depresses investment, induces deflation, and accentuates the problems of unemployment and idle capacity.

WHO SAVES?

The best available data on who does the saving are summarized in tables 47 to 50. In prosperous years all three groups, business enterprises, governments, and private individuals, contribute to the pool of savings.

⁵One of the most thorough expositions of this phenomenon may be found in D. H. Robertson, *Banking Policy and the Price Level*, King, London, 1926. The eccentricities of the banking system have given impetus to a system for the elimination of manufacture and destruction of money. (See Hearings before the Temporary National Economic Committee, Part 9, pp. 3706-26.) For one discussion of the possible direction of banking reform, see Henry Simons, *A Positive Program for Laissez-Faire*, University of Chicago Press, 1934. The proposal for a capital credit bank by A. A. Boole, Jr. (Hearings before the Temporary National Economic Committee, Part 9, pp. 4066-79) is based in part upon the possibility of using bank credit to raise the level of economic activity to full employment.

Note that business is by no means the sole source of savings, nor does it provide even half of the savings. The percentage is usually slightly less than two-fifths. During depression, however, both business enterprises⁶ and governments draw upon past accumulations and upon the savings of the community.

These figures are aggregates. Not all business enterprises save in prosperous years. By no means all lose money in periods of depression. The same is true for governmental units. Some States, like Nebraska, are saving, while others are going into debt to a greater or lesser extent. The same is likewise true for individuals. But in all three categories the notable feature is the fact of concentration.

TABLE 47—*Components of savings, 1925-29 and 1935-39*

Year	Gross savings (millions) ¹	Percent of total by—		
		Business enterprises ²	Government ³	Individuals and others ⁴
1925	19,211	35.5	8.4	56.1
1926	19,037	35.6	9.9	54.5
1927	18,268	30.1	11.1	58.8
1928	17,824	42.8	9.9	47.3
1929	20,298	36.5	8.7	54.8
1935	9,355	45.6	-11.8	66.2
1936	13,817	39.3	-9.4	70.1
1937	17,497	31.5	9.4	59.0
1938	12,744	23.2	7.7	69.1
1939	⁵ 15,600	34.2	.8	65.0

¹ Gross capital formation, as estimated by Simon Kuznets in *National Income and Capital Formation, 1919-35*, New York, National Bureau of Economic Research 1937, p. 40, and *Commodity Flow and Capital Formation in the Recent Recovery and Decline, 1932-38*, Bull. 74, National Bureau of Economic Research, New York, 1939.

² See table 48.

³ See table 49.

⁴ Gross savings minus business and governmental savings. Other estimates of individual savings are not precisely comparable with this one. For purposes of convenience, however, several other estimates may be summarized:

The estimate of Maurice Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to Consume*, Washington, Brookings Institution, 1934, was 17.8 billion dollars for 1929. Excluding 6.2 billion dollars of capital gains, their estimate is 11.6 billion dollars (pp. 96, 260, 261, 265).

The estimate by the National Resources Committee was 6 billion dollars in 1935-36. (*Consumer Expenditures in the United States*, Washington, 1939, p. 51.)

The estimates by W. H. Lough were (in billions) 1925, \$10.6; 1926, \$10.6; 1927, \$10.4; 1928, \$8.5; 1929, \$9.3. (*High Level Consumption*, N.Y., McGraw Hill, 1935, p. 306.) Lough's method would tend to eliminate capital gains.

The estimates by Clark Warburton were (in billions) 1925, \$9.7; 1926, \$11; 1927, \$11.2; 1928, \$10.9; 1929, \$11.6. ("The Trend of Savings," *Journal of Political Economy*, vol. 43, 1935, p. 84.)

The estimates of R. W. Goldsmith with the assistance of Walter Salant, converted to a gross savings basis excluding consumers' durable goods except houses, were (in billions): 1935, \$2.4; 1936, \$7.8; 1937, \$5.

⁵ Estimated.

⁶ As is explained in Temporary National Economic Committee Monograph No. 37, the data on business enterprises are difficult to interpret, particularly in depression years when business, through revaluations of inventories and accounts receivable, reports losses which are not really current dissavings. The loss of income on the part of the partially or wholly unemployed is not charged against the savings of individuals. If it were, the aggregate losses of individuals would far exceed the bookkeeping losses of business.

TABLE 48.—*Calculation of gross savings by business enterprises, 1923-39*

(Millions of dollars)

Year	Net business savings ¹			Depreciation and depletion ²	Gross savings by enterprises ³
	National income	National income paid out	Business savings		
1923.....			+2,432	3,190	+5,622
1924.....			+1,463	3,282	+4,745
1925.....			+2,851	3,976	+6,827
1926.....			+2,223	4,551	+6,774
1927.....			+996	4,487	+5,483
1928.....			+2,830	4,799	+7,629
1929.....	82,885	80,611	+2,274	5,145	+7,419
1930.....	68,901	74,211	-5,310	5,118	-192
1931.....	54,310	62,816	-8,506	4,897	-3,609
1932.....	40,074	49,289	-9,215	4,550	-4,665
1933.....	42,430	45,515	-3,085	4,354	+1,299
1934.....	50,347	51,788	-1,441	4,265	+2,824
1935.....	55,870	55,896	-26	4,291	+4,265
1936.....	65,165	64,151	+1,014	4,414	+5,428
1937.....	71,172	70,262	+910	4,609	+5,519
1938.....	63,610	65,007	-1,397	4,350	+2,953
1939.....	69,378	68,600	+778	4,550	+5,328

¹ Department of Commerce calculations. Data from 1929 to date computed from Survey of Current Business, June 1940. Data before 1929 are unpublished.

² Hearings before the Temporary National Economic Committee, Part 9, p. 4041, being the calculations of S. Fabricant, *Capital Consumption and Adjustment*, National Bureau of Economic Research, New York, 1938, pp. 32, 33, 38. Dr. Fabricant supplied preliminary material for 1936 and 1937. Data for 1938 and 1939 are estimates.

³ Gross savings computed in this way must necessarily be understated. These data do not include adjustments for contingency and similar charges to income; revaluation charges to income for inventories and accounts receivable, etc.; and charges of capital items to the income account. The understatement is particularly serious in years of depression and sharply falling prices, e. g., 1930-32. See Hearings before the Temporary National Economic Committee, Part 8, pp. 3687-3690.

⁴ Estimated.

TABLE 49.—*Composition of gross saving by governments, 1921-39*

(Millions of dollars)

Year	Cash receipts minus cash expenditures ¹			Public construction ²			Gross savings by Government		
	Federal	State and local	Total	Federal	State and local	Total	Federal	State and local	Total
1921.....	250	-898	-648	397	1,356	1,753	647	458	1,105
1922.....	54	-802	-748	306	1,480	1,786	360	678	1,038
1923.....	301	-649	-348	223	1,422	1,645	524	773	1,297
1924.....	319	-934	-615	231	1,673	1,904	550	739	1,289
1925.....	295	-824	-529	217	1,925	2,142	512	1,101	1,613
1926.....	509	-753	-244	193	1,945	2,138	702	1,192	1,894
1927.....	459	-827	-368	196	2,199	2,395	655	1,372	2,027
1928.....	78	-811	-733	232	2,267	2,499	310	1,456	1,766
1929.....	235	-931	-696	271	2,187	2,458	506	2,256	1,762
1930.....	-386	-1,116	-1,502	357	2,470	2,827	-29	1,354	1,325
1931.....	-2,419	-1,365	-3,784	460	2,155	2,615	-1,959	790	-1,169
1932.....	-1,880	-724	-2,604	499	1,382	1,881	-1,381	658	-723
1933.....	-1,928	811	-1,117	606	740	1,346	-1,322	1,551	229
1934.....	-3,428	1,157	-2,271	978	826	1,804	-2,450	1,983	-467
1935.....	-3,730	771	-2,959	1,106	746	1,851	-2,624	1,517	-1,107
1936.....	-4,337	373	-3,964	1,858	813	2,671	-2,479	1,186	-1,293
1937.....	-1,092	215	-877	1,632	892	2,524	540	1,107	1,647
1938.....	-2,377	455	-1,922	1,883	1,020	2,903	-494	1,475	981
1939.....	-3,651	78	-3,573	2,300	1,400	3,700	-1,351	1,478	127

¹ The net governmental contribution to or subtraction from purchasing power. "This series attempts to measure the difference between the outlays of public bodies that add to the community's disposable cash income and the receipts that represent drafts upon disposable cash income." Hearings before the Temporary National Economic Committee, Part 9, p. 4017. Data from p. 4011, corrected and brought up to date by later material.

² Hearings before the Temporary National Economic Committee, Part 9, p. 4140, brought up to date with Survey of Current Business, June 1940. Does not include outlays for machinery and equipment, which represent a use of savings. Includes that part of relief outlays estimated to result in construction.

Source: Temporary National Economic Committee Monograph 37, appendix II, p. 111.

TABLE 50.—*Gross savings by individuals and others, 1925-29 and 1935-39*

[Millions of dollars]

Year:		Year:	
1925-----	10, 771	1935-----	6, 197
1926-----	10, 369	1936-----	9, 682
1927-----	10, 698	1937-----	10, 331
1928-----	8, 429	1938-----	8, 810
1929-----	11, 117	1939-----	10, 145

Source and method: Gross savings by individuals and others represent total gross savings (table 47) minus gross savings by business enterprises (table 48) and governments (table 49). For the reasons given in table 48, footnote 3, the estimates made by this method are particularly inaccurate in depression years. Other estimates of individual savings are not precisely comparable with this one.

The estimate in Leven, Moulton, and Warburton, *America's Capacity to Consume*, Brookings Institution, Washington, 1934, is \$17.8 billion for 1929. Excluding their \$6.2 billion of capital gains, their estimate is \$11.6 billion (pp. 96, 260, 261, 265).

The estimate by the National Resources Committee was \$6 billion in 1935-36. (Consumer Expenditures in the United States, Washington, 1939, p. 51.)

The estimates by Lough were (in billions): 1923, \$7.8; 1924, \$8.7; 1925, \$10.6; 1926, \$10.6; 1927, \$10.4; 1928, \$8.5; 1929, \$9.3; 1930, \$8.5; 1931, \$4.1. (High Level Consumption, Macmillan, New York, 1935, p. 306.) Lough's method would tend to eliminate capital gains.

As pointed out in the last chapter, a fraction of the American people receives the bulk of the dividends from American corporations; and this fraction is roughly identical with that group responsible for the bulk of savings by individuals. The same fraction, by reason of stockholdings in American corporations, is ultimately responsible for, or is the beneficiary of, gross savings by business enterprises.⁷

Concentration of Business Savings.

Corporations are responsible for the bulk of business gross savings, and the large corporations contribute the lion's share. In 1937, the latest year for which data are available, the Statistics of Income indicate that 318,600 nonfinancial corporations showed gross savings of \$2,869,000,000.⁸ The 210 corporations with assets of more than \$100,000,000 contributed 30 percent of these total gross savings; the 2,900 corporations with assets of more than \$5,000,000 contributed 70 percent. The 4.2 percent of all nonfinancial corporations with assets over \$1,000,000 contributed 88 percent of all these gross savings. There were 189,000 nonfinancial corporations with assets of less than \$50,000 in 1937. These small corporations constituted 59 percent of the total number); their contribution to gross savings was negative (-2.4 percent).

In bad years the concentration is even greater. In 1933, for example, of 288,000 nonfinancial corporations, 375 (0.13 percent) with assets in excess of \$50,000,000 reported 74 percent of the total gross savings.⁹

Again, if only those corporations that had net income (which in 1937 were 139,440 out of a total of 318,464) are considered, those with

⁷ See Temporary National Economic Committee Monograph No. 12, *Profits, Productivity, and New Investment*, ch. VI; Monograph No. 29, *Distribution of Ownership in 200 Largest Nonfinancial Corporations*; and Hearings before the Temporary National Economic Committee, Part 14-A, pp. 7713-7714, 8003-8042. In no case did the 100 largest stockholders of record of the major oil companies own less than 21 percent of the total number of outstanding common shares. The 100 largest stockholders of record owned 24 percent of the Texas Corporation, 47.3 percent of Standard Oil Co. (N. J.), and 84.9 percent of Sun Oil Co. (ibid., p. 7713). Temporary National Economic Committee Monograph No. 29 indicates that going behind the stockholders of record to the beneficial owners shows increased concentration within any corporation. Furthermore, a consolidation of beneficial interests in all corporations shows yet higher concentrations. This is what one would expect. The Mellon interests were found in many corporations, with aggregate holdings of \$500,000,000 out of the \$30,000,000,000 of stock in the sample of corporations. (Cf. E. D. Kennedy, *Dividends to Pay*, Reynal & Hitchcock, New York, 1939.)

⁸ See Temporary National Economic Committee Monograph No. 37, pp. 22-23 and appendix VI, p. 114, for detailed figures and sources of data.

⁹ Hearings before the Temporary National Economic Committee, Part 9, p. 4049.

assets of more than \$1,000,000 (61½ percent of the total number) did 80 percent of the saving.

Concentration of Government Savings.

All governments, Federal, State, and local, saved during the 1920's, but during the 1930's, with the exception of 3 years, they dissaved or had negligible savings. This reversal of pattern is easily misunderstood unless it is remembered that savings, governmental as well as individual, are the difference between current income and current expenditure, or, alternatively, the net change in assets or liabilities, exclusive of gains or losses from the revaluation of assets. If a government collects \$10,000,000 in taxes, builds a water supply system costing \$1,000,000, and spends the balance for operating expenses, it has saved \$1,000,000. If it spends \$500,000 for the water system, \$500,000 for debt retirement, and \$9,000,000 for operating expenses, it has still saved \$1,000,000. But suppose it raised only \$9,000,000 from taxes, and borrowed \$1,000,000 to meet its plant outlay and debt retirement. In this case current income and current expenditure were \$9,000,000, and nothing was saved. Governmental gross savings, therefore, equal capital outlays plus decrease in debt (or minus increase in debt).¹⁰

During the 1920's the Federal Government invested—spent for the construction of buildings, roads, harbors, and so forth—an average of \$250,000,000 per year. This figure does not include investments for machinery and equipment, for which data are not available. This \$250,000,000 per year was derived from taxes. At the same time the Federal Government was reducing its debt. The difference between cash income and outlay is the best measure of savings so far as concerns the effect of Federal activity upon the savings-investment stream.¹¹ From 1921 to 1929, Federal net cash income averaged \$280,000,000 more than net cash outlay. On this conservative basis, therefore, gross savings averaged \$530,000,000 per year during the period.

State and local governments from 1921 through 1929 spent an average of \$1,800,000,000 per year for construction. Of these funds, 40 percent, or \$725,000,000, were borrowed; in fact, it has been estimated that all State and local bond issues during the 1920's were for "productive" purposes.¹² On balance, therefore, States and local governments had average gross savings of \$1,000,000,000 per year.

Federal, State, and local gross savings during 1921-29 averaged \$1,500,000,000 per year, of which the Federal Government accounted for a third. The concentration of savings among the remaining 180,000 governments in the United States has never been determined, although it is substantial.

¹⁰ In computing savings each government must be treated on a consolidated basis: transfers to trust funds, etc., must be adjusted for. Goldsmith and Salant ("Volume and Components of Saving in the United States," *Studies in Income and Wealth*, National Bureau of Economic Research, New York, 1939, vol. III, p. 290), use the following formula for Federal gross savings, 1935-37: (a) current receipts equal total receipts minus (i) capital Federal gross savings, 1935-37: (a) current receipts equal total receipts minus (i) capital receipts and (ii) seigniorage; (b) current expenditures equal total expenditures minus (i) public works, including grants for public works, (ii) loans, (iii) subscriptions to capital stock and paid in surplus, (iv) debt retirements, (v) capital outlay of W. P. A., C. W. A., and C. C. C., (vi) saving under trust accounts, increments on gold, etc.

¹¹ Calculation of savings on this basis, instead of on the basis of gross, net, or otherwise adjusted debt, allows for transfers to trust and pension funds, and other noncash outlays.

¹² Moody's Investors Service has prepared a series of "productive" capital issues. This series contains all capital issues which were used for "productive" purposes—for investment. Moody's tabulations for the 1920's indicate that all issues by State and local governments were productive issues. (See the convenient summary of these results in Moulton, Edwards, Magee, and Lewis, *Capital Expansion, Employment, and Economic Stability*, Brookings Institution, Washington, 1940, pp. 27-29 and 349-354.)

Since the depression the distribution and character of governmental savings have changed. The States and localities continued to save each year (generally with the aid of Federal funds), but the Federal Government did not. State and local gross savings ranged from \$700,000,000 in 1932 to \$2,000,000,000 in 1934; in 1939 they were \$1,500,000,000. The Federal Government saved only in 1937 (a year marked, incidentally, by one of the sharpest business recessions on record). The decline of Federal savings has decreased the concentration of governmental saving, both because the greatest concentration existed in the Federal sector, and because much of the Federal deficit has gone to bolster up the finances of the weaker governmental units.

Concentration of Individual Gross Savings.

The concentration of individual savings within the higher income brackets is so striking that it requires no emphasis here.¹³ Some 27,000,000 families at the bottom of the income scale, taken as a group, are unable to do any saving at all; but the 110,000 families and individuals in the group receiving more than \$20,000 a year accumulated 40 percent of the total of \$6,000,000,000 saved.¹⁴ And the 927,000 families and individuals (2.4 percent of the total) with incomes of over \$5,000 accumulated 79 percent.

In fact, those who benefit by trust funds save about as much as 37 million of the 39½ million families and individuals. The adoption of a separate income-tax schedule for fiduciaries for 1937,¹⁵ coupled with separate tabulations in the Statistics of Income for 1937, for the first time permits a fairly accurate analysis of savings by trusts.¹⁶ The Bureau does not, however, tabulate the amount of wholly and partially tax-exempt income for balance deficit trusts, or for trusts with balance incomes below \$5,000. A conservative estimate of the wholly and partially tax-exempt income so excluded is \$20,000,000.¹⁷ With these corrections, trusts in 1937 appear to have saved 26 percent of their balance income, as follows:

[000,000 omitted]

1. Gross taxable income (excluding partially taxable income)-----	\$1, 516
2. Partially and wholly tax-exempt income-----	101
3. Compiled gross income-----	1, 617
4. Total deductions ¹⁸ -----	260
5. Compiled balance income-----	1, 357
6. Distributed to beneficiaries-----	1, 005
7. Undistributed balance-----	352
8. Percentage of balance income saved (percent)-----	26

¹³ For full discussion, see ch. VIII.

¹⁴ The sample of cases above the \$20,000 level was so small, however, that the result must be accepted with caution.

¹⁵ Form 1041.

¹⁶ A more accurate analysis will be made possible by the data for 1938. Many trusts in 1937 filed on the old Form 1040, which masked distribution to beneficiaries. The Bureau of Internal Revenue announced that some 1938 returns were made on Form 1040, but that it "adjusted" the majority of these for distributions (Bureau of Internal Revenue Press Release, No. 21-79, August 7, 1940).

¹⁷ Temporary National Economic Committee Monograph No. 37, p. 19, footnote 20. For full account of methods, see pp. 19-20, appendixes 3 and 4, pp. 111-112.

¹⁸ After an estimated division of the deductions on Form 1040 between distributions and other deductions. This division does not affect the final estimate of savings.

Thus the 182,973 families apparently saved \$352,000,000 in 1937.¹⁹ This was approximately equal to the amount saved in 1935-36 by the 37,000,000 American families with incomes up to \$3,000, who constituted 93 percent of all families.

REASONS FOR SAVING

It is clear that the amount of individual savings depends primarily on the amount of income. Savings are not "saved," they are accumulated. They are not induced by the interest rate, they are the surpluses above consumption of those with high incomes. Even the declining interest rates of the last few years, at relatively stable levels of national income, have been unable to effect any decline in the rate of saving.

Even with any given national income, concentration of income, and tax structure, it must not be assumed that savings increase as rates of interest increase. For individuals who have contracted to save through life insurance and other contractual plans may find themselves saving more, unexpectedly and unintentionally. As dividends on life insurance policies decrease, premium payments increase, entailing increased saving. It is unlikely that these increases in premium payments are offset in full by decreases in other forms of saving. The larger the stake in such contractual forms of saving, the harder it is to decrease saving when rates of interest fall.

So far as life insurance is concerned, there is every pressure upon the policyholder to maintain his policy in force at its full value, for all attempts by the policyholder to do otherwise involve expense or loss of savings. Those whose policies are of several years' standing have a vested interest in continuing to save, even though interest rates decline and the cost of saving increases, for the decline in interest rates appears not to have affected all policyholders equally. One indication is the relative increase in the net premiums on old policies (of, say, 10 or 15 years' standing) compared with that on new policies. Following the drop in interest rates since 1933, net premiums (premium rate minus dividend payments) have been adjusted at an average between the old and new costs, so that new policyholders pay relatively less for their insurance than do older ones whose stake in their policies is larger. Another indication is that the branches of the life insurance business which have grown most rapidly in the past decade are those where the savings element is greatest—annuities and investment of balances—despite the fall of interest rates.

If, and insofar as saving does vary directly with its reward, it is essential to note that there is no one interest rate throughout the community. Saving takes place at many different interest rates. The market for savings is discontinuous and disparate.²⁰ Those with small incomes, who find it hardest to save, receive the smallest net returns upon their savings, because the cost of the savings methods open to them is relatively the greatest. Any comparison of the cost of indus-

¹⁹ Indicated on both Form 1040 and Form 1041. Does not include any adjustment in the trusts for capital gains and losses, since these are shown "net" for all returns. Adjustment on this score would reduce current savings to approximately \$250,000,000. (Cf. Temporary National Economic Committee Monograph No. 37, p. 19.)

²⁰ Even in life insurance the discounted net cost for 10 years of a \$1,000 whole life policy, age 25, varied among the 26 largest companies from \$55.93 to \$87.04, i. e., by more than 50 percent. (See Hearings before the Temporary National Economic Committee, Part 10-A, pp. 300 ff.)

trial insurance with that of ordinary life insurance makes this cost differential obvious. Those with the largest incomes, who find it easiest to save and whose saving is to some degree automatic, receive the highest rates of return upon their saving because they employ low-cost methods and because the information available to them permits them to take advantage of high-yield opportunities.²¹

The tax structure of the Federal, State, and local governments, despite the tax measures which have progressive features, does not appear to have affected the volume of saving in recent years. The Twentieth Century Fund found that the combined tax structure in 1936 was regressive up to an income level of \$2,000 per year,²² and thus fell with disproportionate weight upon those least able to save and to make ends meet. On the basis of the Colm and Lehmann study in 1938, it would seem that the Federal tax system, particularly since the repeal of the undistributed profits tax, has increased rather than decreased the volume of savings.²³ Dennison estimated that the Federal State, and local tax system fell 73 percent upon consumption and 27 percent upon savings in 1936.²⁴ It has been estimated that the tax structure in 1938-39 fell with approximately the same weight upon savings as in 1936.

In recent years, therefore, the volume of saving has for practical purposes been a function of the level of national income and of the concentration of individual and corporate income.

THE RESERVOIRS IN WHICH SAVINGS ARE COLLECTED

Savings may move into investment directly or indirectly. The indirect movement involves the transfer of savings from the saver, through one or more intermediaries, to the investor.²⁵ A simple case may involve only the placing of mortgage money through a local real estate broker, or the deposit of funds with a building and loan association which lends these funds on mortgage. A more complex movement may easily involve two or more intermediaries. The saver pays a premium to his life insurance company; the life insurance company buys newly issued bonds offered by an investment banker; the investment banker, who has bought the bonds from the issuing corporation, in effect transfers the funds to the issuing corporation; and the latter invests them. In recent years life insurance companies and other financial institutions have bought more and more new bond issues directly from the issuing corporations, thus by-passing the investment banker.²⁶

The transfer mechanism, whether simple or complex, is generally termed the capital market; and this term is convenient so long as it does not obscure the fact that the capital market consists of not one but many markets, that the connections among these markets are

²¹ Compare the advantage of wealthy individuals and others. The former were on the J. P. Morgan & Co. "preferred lists." On the other hand, the "immigrant population, who, untrained in banking habits and frequently the victims of unscrupulous banking practices, prefer the safety afforded" by postal savings banks at 2 percent. ("Postal Savings Banks," *Encyclopedia of Social Sciences*, vol. XII, pp. 268-269.)

²² *Facing the Tax Problem*, Twentieth Century Fund, New York, 1937, especially p. 233. See also Temporary National Economic Committee Monographs No. 3 and No. 20, pp. 171 ff.

²³ G. Colm and F. Lehmann, *Economic Consequences of Recent American Tax Policy*, New School for Social Research, 1938, p. 42.

²⁴ H. S. Dennison et al., *Toward Full Employment*, McGraw-Hill, New York, 1938, p. 185.

²⁵ See the discussion by D. H. Davenport in Hearings before the Temporary National Economic Committee, Part 9, pp. 3726-3734.

²⁶ *Ibid.*, exhibit No. 618, p. 3816.

frequently extremely tenuous, and that corresponding to these markets is an interest rate structure rather than a uniform interest rate. The major savings institutions in the capital market, as described by Davenport, are the life insurance companies, the mutual savings banks, the commercial banks, United States savings ("baby") bonds, the Postal Savings System, the social security and the Federal, State, and other pension and retirement funds, building and loan associations, investment trusts, and corporate and individual trustees.²⁷ The principal auxiliary mechanisms in the capital market are the stock exchanges, security brokers and dealers, and the investment bankers.

To the individual saver the indirect movement of savings into investment offers many advantages. It means greater diversification, greater security, greater liquidity. To the investor it opens the possibility of obtaining funds in larger amounts and on a variety of terms. To the community the mobilization and allocation of savings through the capital market may result in their most effective employment and expenditure. Savings in large and small amounts flow into savings reservoirs, to be assembled and auctioned off to the highest bidders. To the extent that savings really go to the highest bidder (taking into consideration the risk involved) and to the extent that the greatest rate of return corresponds with the greatest social need, savings are most effectively employed.

On the other hand, the direct movement of savings into investment—where the saver invests his own savings—though involving no expense, may not result in the most efficient use of savings. Savings may be invested directly in low-yield employments instead of indirectly in higher-yield employments. Complaints were made during the 1920's that the growing corporate practice of achieving financial self-sufficiency was freeing investment policy from the "testing" of the capital markets.

Whether the indirect movement of savings into investment is more effective socially than the direct movement depends upon whether the capital market mechanism operates without bias and in the full light of day. Various congressional investigations since 1931 have established that the unregulated markets of the boom era did not operate in that manner. But the facts disclosed by the Hearings on the Sale of Foreign Securities,²⁸ the Hearings on Utility Corporations,²⁹ the Investigation of Railroads, Holding and Affiliated Companies,³⁰ the Hearings on Stock Exchange³¹ and the Reports on Protective and Reorganization Committees³² have had their effect. The enactment of the Securities Act of 1933, the Securities Exchange Act of 1934, the Public Utility Holding Company Act of 1935, and the revisions of the bankruptcy and reorganization procedures have done a great deal to remove the abuses of the boom era and to make the capital markets function more adequately. It is probably true that the principles of full disclosure and adequate information—some conditions of a properly functioning market—are more thoroughly observed now than ever before.

²⁷ *Ibid.*, p. 3727.

²⁸ S. Rept. 41, 73d Cong., 1st sess.

²⁹ Pursuant to S. Res. 83, 74th Cong., 1st sess.

³⁰ Pursuant to S. Res. 71, 74th Cong., 1st sess., 1936-37.

³¹ Pursuant to S. Res. 84, 72d Cong., and S. Res. 56, 73d Cong.

³² Securities and Exchange Commission, 1936.

INSTITUTIONALIZATION OF SAVINGS

In 1922 the assets of the principal savings institutions totaled \$30,000,000,000; in 1929, \$55,000,000,000; and in 1939, \$69,000,000,000.³³ The yearly increase in the assets of the principal savings institutions averaged more from 1937 to 1939 than from 1927 to 1929. The average yearly increase relative to national income, however, was greater in the later period. For the 3 years 1927-29 the average ratio of the yearly increase in assets to national income was 4.5 percent; for the 3 years 1937-39 the ratio was 5.9 percent.

These data not only suggest the efforts of the American people to save but they testify to the institutionalization of savings. An analysis of all savings by individuals in the period 1933-37 illustrates this situation in another way. From 1933 through 1937 individuals had gross savings of 1.9 billion dollars.³⁴ This was the final result of saving 16.1 billion dollars in some forms, and of drawing upon 5.2 billion dollars in other forms. Individuals reduced their holdings of securities by 2.1 billion dollars, and their ownership of homes, automobiles, and household property by 3.1 billion dollars. On the other hand, they saved 16.1 billion dollars through financial institutions. These savings were represented by:

	<i>Billion</i>
An increase in currency and deposits.....	8.3
An increase in insurance and pension reserves.....	9.4
A decrease in equities in building and loan associations.....	1.6
A net increase in all these forms.....	16.1

These 16.1 billion dollars of individuals' savings were institutionalized and became the investment problem of financial institutions.

The institutionalization of individual savings may be indicated in another manner. The increase in the assets of the principal savings institutions represents principally savings by individuals, although some small business savings are undoubtedly included.³⁵ From 1927 to 1929 slightly less than half, and from 1936 to 1939 slightly more than half, of individual savings flowed through these institutions.

Most of the individual savings flowing into savings institutions go into the assets of life insurance companies, the time deposits of commercial banks, and mutual savings banks. In 1939, when the assets of the principal savings institutions totaled \$69,000,000,000, life insurance company assets were \$27,000,000,000, time deposits in commercial banks totaled \$15,000,000,000, and mutual savings banks assets were \$12,000,000,000. The remaining \$15,000,000,000 was divided among building and loan associations, governmental pension and trust funds, postal savings, and United States savings bonds. The growth of these components is sketched in table 51.

³³ Temporary National Economic Committee Monograph No. 37, appendix XII, p. 120.

³⁴ Goldsmith and Salant, *op. cit.*, vol. III, p. 237.

³⁵ For an estimate of the number of persons employing the various savings processes, see hearings before the Temporary National Economic Committee, Part 9, p. 4063.

TABLE 51.—*Assets or funds in the principal savings institutions in the United States, 1922-39*

[Amounts in millions of dollars]

Year (as of June 30)	Life insurance assets less policy loans ¹	Time deposits in com- mercial banks ²	Mutual savings banks assets	Build- ing and loan associa- tion assets	Govern- mental pension and trust funds	Postal- savings de- posits	United States savings ("baby") bonds	Total	Annual increase or de- crease in total
(1)	(2)	(3)	(4)	(5)	(6)	(7)			
1922-----	7,600	11,717	6,352	3,343	444	138		29,594	
1923-----	8,350	13,391	6,905	3,943	559	132		33,280	3,686
1924-----	9,103	14,399	7,365	4,766	679	133		36,445	3,165
1925-----	10,131	15,884	7,913	5,509	830	132		40,399	3,954
1926-----	11,355	17,070	8,422	6,334	993	134		44,308	3,909
1927-----	12,646	17,936	9,011	7,156	1,174	147		48,070	3,762
1928-----	13,987	19,626	9,688	8,016	1,420	152		52,889	4,819
1929-----	15,321	19,187	10,006	8,695	1,675	154		55,038	2,149
1930-----	16,465	19,125	10,295	8,824	1,929	175		56,813	1,775
1931-----	17,347	17,880	11,192	8,412	2,179	347		57,357	544
1932-----	17,572	13,559	11,134	7,745	2,418	785		53,213	-4,144
1933-----	17,771	10,389	10,967	6,972	2,671	1,187		49,957	-3,256
1934-----	18,503	11,255	11,065	6,445	2,918	1,198		51,384	1,427
1935-----	19,813	12,357	11,173	5,884	3,208	1,205	62	53,702	2,318
1936-----	21,502	13,250	11,409	5,620	3,574	1,232	316	56,903	3,202
1937-----	23,313	14,193	11,645	5,706	5,025	1,268	794	61,944	5,041
1938-----	24,607	14,360	11,572	5,621	6,169	1,252	1,215	64,796	2,852
1939-----	26,296	14,628	11,799	5,667	7,400	1,262	1,821	68,873	4,077

¹ Admitted value basis; includes fraternal insurance. These figures are published for 306 life insurance companies and for fraternal orders in the *Spectator Life Insurance Yearbooks*, as of Dec. 31, of each year. June 30 figures were estimated by using the percentages of the total life insurance assets which were held by the 49 companies reported on a monthly basis by the Association of Life Insurance Presidents and published in the Bureau of Foreign and Domestic Commerce, *Survey of Current Business*.

² Excludes postal-savings deposits.

Source: Adapted from Hearings before the Temporary National Economic Committee, Part 9, p. 4052. Col. 1 is from the *Spectator Insurance Yearbooks*, Life Volume; cols. 2, 3, 4, and 6, from the Bureau of the Census, *Statistical Abstract of the United States*; col. 5, data for 1937 from a study made by the U. S. Treasury Department, with the other years estimated; col. 7, from the Annual Reports of the Secretary of the Treasury.

The relative importance of life insurance in the total has been increasing since 1924. In that year the life insurance companies held 25 percent of these savings. Since then the proportion has grown as follows:

Year:	Percent	Year:	Percent
1927-----	26	1936-----	38
1930-----	29	1939-----	38
1933-----	36		

GEOGRAPHICAL CONCENTRATION OF SAVINGS

One-third of the principal reservoirs of savings is concentrated in New York; another third in New Jersey, Massachusetts, Pennsylvania, and Connecticut; and the remaining one-third is in the other 43 States.²⁶ Life insurance companies show the greatest geographical concentration. For the 25 largest companies, with 87 percent of all life insurance assets, 57 percent of the assets are controlled from New York and Newark, 17 percent from New England, and 4 percent from Pennsylvania—that is, 78 percent of these assets are controlled from the financial East. The other savings institutions show similar concentration. Ninety percent of the assets of mutual savings banks are in 5 States.²⁷ with 54 percent in New York; 59 percent of the assets of commercial banks are in 5 States,²⁸ with 29 percent in New York. The value of

²⁶ Hearings before the Temporary National Economic Committee, Part 9, pp. 3751-3768.

²⁷ New York, Massachusetts, Connecticut, Pennsylvania, New Jersey. (*Ibid.*, p. 4059.) For an explanation of this concentration, see *ibid.*, pp. 3770-3771.

²⁸ New York, Pennsylvania, Illinois, California, Ohio (*Ibid.*, p. 4060).

assets entrusted to corporate and individual trustees is not known with any precision, but it may amount to \$50,000,000,000, or almost twice as much as the assets of life insurance companies. The control over trust assets rests primarily in New York and a few other cities.

CONCENTRATION OF SAVINGS IN LARGE INSTITUTIONS ³⁹

Savings are largely concentrated in the large savings institutions. The 308 legal reserve life insurance companies under investigation reported total admitted assets of \$26,000,000,000 at the end of 1937. The five largest companies held 54 percent of this total:

	Assets (millions)	Percent of total
Metropolitan.....	\$4, 720	18. 0
Prudential.....	3, 584	13. 7
New York Life.....	2, 520	9. 6
Equitable.....	2, 106	8. 0
Mutual Life.....	1, 349	5. 1
Total.....	14, 279	54. 4

The Metropolitan is by far the largest business organization in the United States, and the Prudential is third, with only American Telephone & Telegraph ahead of it. In fact, there are only nine corporations in the country as large as, or larger than, the smallest of these five life insurance companies—three industrials, two public utilities, and four railroads.⁴⁰

The five insurance giants located in New York City and Newark, N. J., are surrounded by a host of companies that seem small only by comparison. For the 16 largest companies hold 81 percent (\$21,000,000,000) of total life assets and the 25 largest companies hold 87 percent (\$23,000,000,000).

Other financial and savings institutions show a similar concentration. The 543 mutual savings banks in 1939 held \$11,600,000,000 of assets, but the 25 largest banks held 42 percent of the total. The 50 largest commercial banks held \$26,000,000,000 of assets at the end of 1939, while the total bank assets of \$57,000,000,000 were held by almost 14,000 banks. Thus, less than two-tenths of 1 percent of all commercial banks held 46 percent of all the assets. The building and loan associations are probably the least concentrated of all the savings institutions.

The institutionalization of savings thus presents on one hand millions of persons employing the various savings processes and on the other, a relatively small number of savings institutions, in many cases linked by interlocking officers and directors, that hold, manage, and control these savings. The extent of concentration on the one side has been sketched, and it may be of interest to indicate the extent of the dispersion on the other. In 1937-38 there were—with many duplications within classes and among classes—35,000,000 ordinary life policies, 89,000,000 industrial policies, 31,000,000 savings depositors

³⁹ Hearings before the Temporary National Economic Committee, Part 9, pp. 3751-3768, 4051-4059.

⁴⁰ Assets in millions of dollars; Standard Oil Co., (N. J.), 1,895; U. S. Steel Corporation, 1,822; General Motors Corporation, 1,492; American Telephone & Telegraph Co., 3,998; Consolidated Edison Co. of New York, 1,377; Pennsylvania R. R. Co., 2,863; New York Central R. R. Co., 2,356; Allegheny Corporation, 1,379; and Southern Pacific Co., 1,678. See National Resources Committee, *Structure of the American Economy*, Washington, 1939, pp. 99-101.

in commercial banks, 14,000,000 depositors in the mutual savings banks, 6,000,000 members of building and loan associations, and 3,000,000 depositors in the Postal Savings System.⁴¹

RESULTS OF CONCENTRATION OF SAVINGS

Once the savings pile up in these huge reservoirs they tend to become idle, or go into Government bonds, or into securities earning a low rate of return.

The extent to which life insurance companies have hundreds of millions of dollars in banks which earn no return is dealt with in a later chapter.⁴² But they are not the only institutions embarrassed by an oversupply of funds. The mutual savings banks had \$572,000,000 of cash on deposit in 1938. The excess reserves and cash holdings of commercial banks have likewise reached all-time highs.

Commercial banks, savings banks, insurance companies, and trustees have increasingly turned to Government bonds as outlets for their funds. In 1921, member banks of the Federal Reserve System held \$2,600,000,000 of Government obligations, or 11 percent of their loans and investments; in 1938, they held \$12,300,000,000, or 40 percent. In the 1920's two-thirds of the assets of commercial banks were invested in short-term commercial loans. Today only one-third is so invested. The balance is in Governments, real-estate mortgages, and other long term securities. Commercial banks are losing their traditional commercial banking functions. More and more they are coming to resemble investment trusts purchasing fixed-interest-bearing securities.

Savings banks show a similar trend to Government securities. From 1931 to 1938, the New York savings banks increased their holdings in Governments from 5 to 23 percent of their assets.⁴³ In the same 7 years the 26 largest legal reserve life insurance companies in the United States increased their holdings of Governments from \$347,000,000, or 2 percent of their assets, to \$4,500,000,000, or 19 percent. Both trustees and trust companies, according to the testimony of William R. White, superintendent of banks of the State of New York, have also been investing more heavily in Government securities.⁴⁴

Interest yields have fallen sharply, as table 52 shows.

TABLE 52.—*Interest yields, 1929-40*

Year	U. S. Gov- ernment long-term bonds (percent)	Municipal bonds (percent)	Highest grade corporate bonds (percent)
Average:			
1929	3.60	4.27	4.73
1933	3.31	4.71	4.49
1938	2.56	2.91	3.19
1939	2.36	2.76	3.01
May 1940	2.38	2.81	2.93

Source: Government bond yields: Average yield of all outstanding bonds due or callable after 12 years, compiled by the U. S. Treasury Department; municipal bond yields compiled by Standard Statistics Corporation; corporate bond yield figures since 1937 from Federal Reserve Bulletin, and earlier figures from Federal Reserve Board Annual Report for 1937, p. 80.

⁴¹ Hearings before the Temporary National Economic Committee, Part 9, p. 4063.

⁴² See ch. XI, *infra*.

⁴³ Hearings before the Temporary National Economic Committee, Part 9, p. 3801.

⁴⁴ *Ibid.*, p. 3800.

Interest rates on loans by commercial banks have shown similar or greater declines. Rates charged in New York City declined from 5.88 in 1929 to 2.26 percent in 1939, those charged in 8 other eastern and northern cities declined from 6.04 to 3.37 percent, and those charged in 27 southern and western cities declined from 6.14 to 4.10 percent.⁴⁵

Mortgages appear to have shown no such declines. The records of the Bowery Savings Bank in New York City indicate that interest rates on urban mortgages decreased from 5.93 percent in 1929 to 4.41 percent in 1937.⁴⁶ The effective interest rates charged by savings and loan associations have shown general decreases throughout the country; in Illinois and Wisconsin, for example, they decreased from 7.4 percent in 1931 to 6.4 percent in 1936.⁴⁷

Interest rates on farm mortgages, on the whole, appear to have decreased less than any other type of interest rate. In Iowa they decreased from 5.5 percent in 1929 to 4.9 percent in 1935, and for the United States as a whole they appear to have decreased from 6.2 percent in 1929 to 5.5 percent in 1935.⁴⁸ Farm mortgages may be in a class by themselves, insulated from general money market conditions. Or, as abundantly illustrated in the testimony of the executives of large financial institutions, there may have been a concept of a reasonable rate for farmers, accompanied by a general habit-pattern of business conduct not to take business away from other companies by quoting lower interest rates. It was stated on behalf of the Metropolitan that it did not go after loans on the books of other companies;⁴⁹ and it appeared that the Prudential instructed its agents not to "raid" the business of others.⁵⁰ Thus farmers find it relatively difficult to obtain interest rate concessions on their mortgages. They cannot refund their obligations when money market conditions are favorable, as the large business enterprises can. Without Government intervention, the decline in farm and urban mortgage interest rates would have been even less.

The concentration of funds in savings institutions, by sharply reducing the number of persons responsible for investment decisions, has limited competition in important respects.

Concentration has made it possible to dam off part of the savings stream, diverting part of the flow of savings into cash balances—idle cash hoards. This diversion has reduced the pressure of savings upon interest rates, and has prevented them from falling to competitive levels.

Concentration has not permitted the pressure of the flow of savings to affect all streams of investment equally. Those who can tap the central money markets for large amounts have been the principal beneficiaries—the Federal Government, States, and municipalities, and, perhaps most of all, industrials and public utilities, as shown by

⁴⁵ Twenty-third Annual Report of the Board of Governors of the Federal Reserve System (1936), table 44, p. 120; Federal Reserve Bulletin, July 1939, p. 587.

⁴⁶ M. H. Hoffman, "Rate of Return on New Mortgage Loans Made by the Bowery Savings Bank," Association News Bulletin of the Savings Bank Association of the State of New York, vol. XIX, p. 154.

⁴⁷ Hearings before the Temporary National Economic Committee, Part 11, p. 5485.

⁴⁸ From data prepared by the Bureau of Agricultural Economics in conjunction with the Work Projects Administration. Data on contract rates charged on life insurance company loans are in Hearings before the Temporary National Economic Committee, Part 10-A, p. 163. It should be noted that the rates there shown are probably for the best grade of mortgage and for mortgages of increasing quality.

The average rate of interest paid on all outstanding farm indebtedness appears to have decreased from 5.96 percent in 1929 to 5.59 percent in 1933, to 4.95 percent in 1938 (Hearings before the Temporary National Economic Committee, Part 28, ex. 2270, p. 15498).

⁴⁹ Ibid., Part 28, p. 14979.

⁵⁰ Ibid., Part 4, p. 1224.

decreasing interest rate differentials in face of the increasing advantages of tax exemption. The rates charged by banks on commercial loans show the same characteristics. The greatest reductions have gone to large business enterprises who can shuttle between the banks and the security markets. For them the banks have offered term loans up to 10 years at very low rates.

Farmers and owners of small urban properties cannot readily change from one institution to another. Hence rates do not fall to competitive levels; the interest rate structure becomes distorted, and potentially large fields of investment are choked off.

When these trends are coupled with the element that many large corporations tap the capital markets very infrequently, that many are able to finance their requirements from internal sources, as indicated in the next chapter, the problem of putting all our savings to work emerges in all its gravity.

CHAPTER X

CONCENTRATED CONTROL OF INVESTMENT POLICIES¹

The evidence summarized in the preceding chapter shows that expansion of national income is not limited by shortages of funds. Gross savings always provide a volume of funds sufficient to finance the capital expenditures necessary to maintain the level of national income.²

When an individual makes what he calls an "investment," he usually means that he has bought out in whole or in part somebody else's investment. He speaks of "investing" in bonds or stocks. But that is merely exchange of ownership. Obviously, no matter how often or at what prices the shares of United States Steel are bought and sold on the New York Stock Exchange, ingot capacity remains unaffected, unless the executives of the company take either their own money or other people's money and build new coke ovens and furnaces. Investment refers to the physical fact of spending money for capital goods.

Employment is thus created by investment in the production of capital goods, whether they be producers' capital—for example, plant and equipment—consumers' capital, such as houses, or community capital, such as bridges or roads.³ Whether or not any of these "investments" pay makes no difference so far as initial employment is concerned. The building of a factory which later goes bankrupt and ceases to operate gives just as much employment at the time of building as one that earns steady returns. Employment is created whether or not projects are self-liquidating. Nor does it make any significant difference who spends the money—a businessman, a home-owner, or a Government official, or whether it comes from long- or short-term funds, from savings already made, or from bank credit.

The process of investment performs two useful functions. In the first place, it maintains and expands productive capacity. In good times investment expenditures provide approximately 20 percent of the gross national income. In financial and accounting terms, approximately one-half the gross investment in the United States in good years represents replacement. In the same terms, approximately two-

¹ This chapter was originally written by Dr. Oscar L. Altman, senior economist, National Resources Planning Board. It was read by Dr. Alvin H. Hansen, professor of economics, Harvard University; Dr. E. A. Goldenweiser, director of research and statistics, and George Terborgh, Federal Reserve Board; and revised by Dr. Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University.

² See Temporary National Economic Committee Monograph No. 12, *Profits, Productive Activities, and New Investment*, pp. xix and xx.

³ The niceties of definition are not considered here, since the issue is whether investment, no matter how defined, is a process controlled by few persons. One of the better definitions is that "Investment may be taken as the value of durable goods produced, excluding consumers' durable goods; plus additions to monetary stocks of gold and silver; plus additions to business inventories; and plus the net increase in assets acquired from non-residents."

thirds of business investment, excluding net changes in inventories, represents replacement.⁴

In the financial terms, business investment, for example, during 1931-34 was alleged insufficient to maintain plant and equipment.⁵ But in "real" terms productive capacity seems not to have diminished.

In short, accounting calculations of the net expansion or the net contraction of the amount of capital goods used by business enterprises do not necessarily reflect changes in industrial capacity. As A. H. Hansen explained:

It is quite possible that those capital outlays which were made on renewals and replacements, introducing through those capital outlays new technics and improved machinery, may have left your total capital plant as productive as before, despite the fact that the accounting figures would indicate a decline in the total capital stock.⁶

And as he noted later:

The expenditures from depreciation and depletion allowances may often have no relation to any specific worn-out machines. Newly built plant and equipment will not need to be replaced for many years and sometimes even decades, yet the annual depreciation allowances on such equipment will be available year by year for expansion.⁷

The second important function performed by the investment process is graphically illustrated in chart XV. For it is investment that maintains purchasing power, the level of employment, and national income. It is clear from the chart that hoarding ultimately restricts national income, but putting money to work making goods increases national income.

⁴These summary divisions of investment between maintenance and expansion must, however, be interpreted with caution. These allocations of investment between replacement and expansion are made in financial terms. They do not necessarily apply to real investment, to investment after adjustment for changes in prices, quality, and type of product. These adjustments are difficult, complicated, and theoretically unsatisfactory, and the separation of real investment into maintenance and replacement suffers accordingly. In any event, the very term "replacement" in a dynamic economy is misleading. The four-high continuous strip mill is not the same as the two-high discontinuous mill it replaces, nor is the new house the same as the old. The type, quality, and specification tolerances of the steel produced with the new machine, the standard of living and comfort in the new house, are different from the old. Gross investment, rather than net investment alone, changes the direction, tempo, output, and productive methods of the economy. For many purposes it is impossible, and even theoretically undesirable, to distinguish between replacement and expansion as components of gross investment.

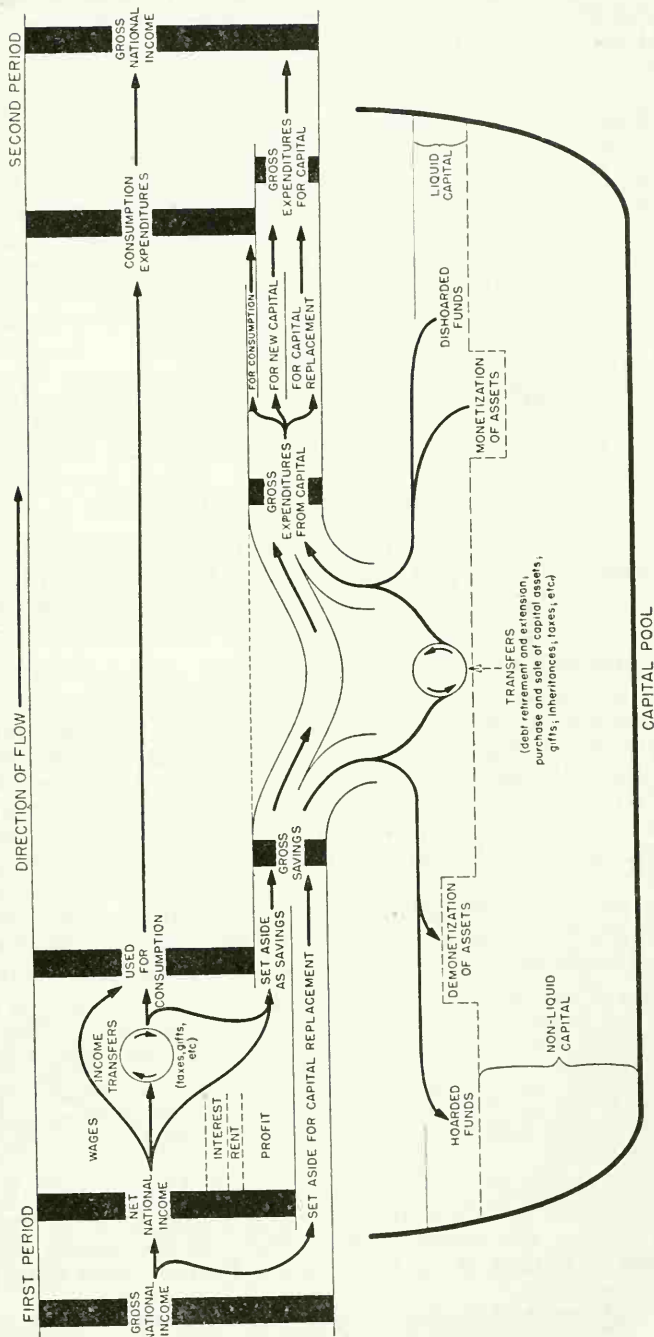
⁵Estimates of capital consumption due to depreciation differ from the provisions for depreciation made by business enterprises and others. Business enterprises keep records of depreciation to help them recapture funds invested in capital goods. To do so they charge current receipts for current depreciation. Hence depreciation is almost always based upon original cost. On the other hand, the subtraction of an allocated part of past investment, in terms of original prices, from present investment in current prices gives no indication of net investment. To compare gross investment and capital consumption, it is necessary to express both in the same prices.

⁶Hearings before the Temporary National Economic Committee, Part 9, p. 3510. It should be noted that the concept of productive capacity is an elusive one. Some of its aspects are examined by George Terborgh in *The Problem of Manufacturing Capacity*, Federal Reserve Bulletin, July 1940.

⁷Hearings before the Temporary National Economic Committee, Part 9, p. 3539. For an effective summary of evidence showing that investment during the late thirties has maintained productive capacity at least at the 1929 level, see T. J. Kreps, *Consumption—A Vast Underdeveloped Economic Frontier*, *American Economic Review*, vol. 30, No. 5, February 1941, pp. 177-199.

Chart XV

SELECTED FEATURES OF THE FLOW OF FUNDS
NATIONAL INCOME THE SAME IN TWO SUCCESSIVE PERIODS



Source: TNEC Monograph No. 12, Profits, Productive Activities, and New Investment, by Martin Taitel, p. 128. For complete explanation of methods of computation, sources of data, and limitations of meaning, see *ibid.*, Chapter XV.

During the short periods represented by business depression, the income-distributing aspect of investment may well be more important than the capital goods production aspect. Considered only in their physical aspects, the postponement of a new road for a year or two would not greatly affect transportation costs, and a year's delay in constructing a new refinery would not substantially modify oil output or oil prices. Even the drying-up of investment for 2 or 3 years would not substantially affect the volume of consumption. The drying-up of investment does, however, seriously interrupt the flow of income. If \$1,000 is saved and invested, the money turns up as income within the community; if \$1,000 is saved but not invested, income is decreased, and production and employment follow suit. The unemployed suffer the most, but all parts of the community are affected.

Concentration of control over the making of investment decisions is, therefore, of great importance. In this chapter three questions are treated.

1. Who makes investment decisions?
2. What types of goods do investment decisions produce?
3. To what extent is there concentration of control over investment decisions? and with what results?

WHO MAKES INVESTMENT DECISIONS?

In some cases those who make or control the savings also make the investments. This is particularly true of business concerns. In other cases, intermediaries take the savings and place them at the disposal of government and business.

Direct Investment.

American business enterprises have been able to finance the bulk of their investments in plant and equipment from internal sources. For example, while business outlays for plant and equipment in 1929 reached an all-time high of 10 billion dollars, gross business savings were 7.6 billion dollars, or sufficient to finance three-quarters of it. In the same year more than 10 billion dollars of securities were issued, less than 2 billion dollars of which were used for "productive" purposes.⁸

If in years like 1929 business firms required less than a quarter of their funds from outside sources, in ordinary years they are much more self-sufficient. Altman summarized the situation as follows:

In years of high business activity, business enterprises draw upon the capital market, that is, the savings of individuals and institutional investors, but never since 1922 for more than \$2,000,000,000 a year. During years of low activity business enterprises do not require any funds from the capital market.

Instead, they contribute funds to the capital market, either by paying out dividends in excess of earnings or by converting depreciation and depletion allowances into bank deposits or securities, thus making them available to other types of investors.⁹

Proof of this important point was provided in the T. N. E. C. hearings not only by specific examples of the largest domestic corporations but by figures for industry in general. For example, Edward R. Stettinius, chairman of the board of the United States Steel Corpora-

⁸ Hearings before the Temporary National Economic Committee, Part 9, p. 3688. Cf. Moulton, Edwards, Magee, and Lewis, *Capital Expansion, Employment, and Economic Stability*, Brookings Institution, Washington, 1940, pp. 349-354.

⁹ Hearings before the Temporary National Economic Committee, Part 9, pp. 3696-3697.

tion, testified that from 1921 through 1938 his company had invested \$1,222,000,000 in plant and equipment. Ninety-six percent of the whole amount came from internal sources—\$938,000,000 from depreciation reserves, \$192,000,000 from profits retained, and \$50,000,000 from tax refunds, a grand total of \$1,180,000,000.¹⁰ Book value of plant between 1926 and 1937 decreased 18 percent, but physical capacity to produce increased over 13 percent.¹¹

In a similar vein Owen D. Young testified that the General Electric Co. now has resources of \$322,000,000. Of this, \$192,000,000 came from undistributed profits, \$92,000,000 from sales of stocks and bonds for cash, and \$38,000,000 from properties acquired in exchange for stock.¹² From 1921 to 1939, the company did not spend as much for plant and equipment as was accumulated in depreciation reserves.¹³

Again, Alfred P. Sloan, Jr., chairman of the board of General Motors Corporation, testified that his company had earned \$2,300,000,000 in the last 18 years. Roughly, 80 percent of this had been paid out in dividends, 20 percent retained in the business.¹⁴ "In the 18-year period there has been substantially no outside financing," he testified.¹⁵ Total funds available from internal sources aggregated \$1,100,000,000, with \$520,000,000 from allowances for depreciation and \$490,000,000 from undistributed profits. Total expenditures on plant were \$770,000,000, leaving a balance of \$240,000,000 with which to finance subsidiaries, inventories, installment sales, and so forth.¹⁶

Mr. NEHEMKIS. Would it be a correct statement, Mr. Sloan, to say that General Motors is in a position today to do most of its internal financing out of earnings, and, in addition to finance the ultimate consumers of your product as well?

Mr. SLOAN. I think that is a correct statement of fact.¹⁷

If the national income should jump to \$80,000,000,000, requiring an increased demand for motor vehicles, "I am quite certain," said Sloan, "that we can handle anything * * * from the internal funds without going into the money market."¹⁸ The present plant investment of the whole automobile industry has the capacity, in his opinion, to take care of all normal demands in the future.

F. B. Rentschler, chairman of the board of United Aircraft Corporation, likewise testified that his company intended to continue its policy of meeting expenditures on plant out of earnings and depreciation, and would have no occasion to go to the capital markets. He summarized the experience of his company as follows:

Our company has demonstrated its ability to expand its operations to meet all requirements and entirely from its earnings. We intend to continue this procedure as a matter of policy. Our company today is owned entirely by its approximate 29,000 common-stockholders, free of any indebtedness whatever, and we believe with adequate working capital for the future.¹⁹

John W. Barriger, III, chief examiner of the Railroad Division, Reconstruction Finance Corporation, presented figures on the railroad industry as a whole. From 1921 through 1937, Barriger testified, 72 percent of the expenditures by railroads for plant and equipment

¹⁰ *Ibid.*, p. 4026.

¹¹ *Ibid.*, Part 26, exhibit 1409, pp. 13746, 13849.

¹² *Ibid.*, Part 9, pp. 3599, 3615.

¹³ *Ibid.*, pp. 3620-3621.

¹⁴ *Ibid.*, p. 3651.

¹⁵ *Ibid.*

¹⁶ *Ibid.*, pp. 3651-3652, 4031-4032.

¹⁷ *Ibid.*, p. 3657.

¹⁸ *Ibid.*, p. 3661.

¹⁹ *Ibid.*, p. 3637.

were financed from internal sources, 19 percent from new issues of stocks and bonds, 9 percent from reductions in working capital.²⁰

The financing of 58 large industrial companies for the years 1930-39 was likewise largely internal.²¹ The size of these companies is indicated by their \$12 billion of assets in 1938; the composition of the sample was as follows:

	<i>Billion</i>
9 steel companies.....	\$3. 6
7 automobile companies.....	1. 6
11 petroleum companies.....	3. 5
23 machinery companies.....	2. 0
4 rubber and tire companies.....	. 7
4 tobacco companies.....	. 7
58 companies in sample.....	12. 1

During the 10 years studied, these 58 companies invested \$5,557,-000,000, as follows:

Use	Amount (millions)	Percent
For plant and equipment.....	\$4, 751	85. 5
For new investments (net).....	365	6. 6
In cash and bank deposits.....	327	5. 9
To retire preferred stock.....	12	. 2
For miscellaneous purposes.....	102	1. 8
Total.....	5, 557	100. 0

The funds for their outlays came principally from their gross savings. Undistributed profits, depreciation, and depletion provided about 83 percent of the total. External sources—the issue of stocks and bonds and the increase in current liabilities—provided 10 percent of the total. Conversion of assets provided the remaining 7 percent.

	Amount (millions)	Percent
From gross savings.....	\$4, 603	82. 8
From issue of common stock.....	435	7. 8
From sale of bonds.....	73	1. 3
From increase in current liabilities.....	43	. 8
From decrease in inventories.....	19	. 3
From decrease in accounts receivable.....	167	3. 0
From decrease in holdings in marketable securities.....	214	4. 0
Total.....	5, 554	100. 0

In the period studied, the 2 years of greatest investment were 1930 and 1937. The sample of 58 companies invested 1.3 billion dollars in the former year and 1.5 billion dollars in the latter. Whose money did they invest? In 1930, their own savings provided 40 percent of the funds. Conversion of assets—reduction of inventories, accounts receivable, and holdings of securities—provided 40 percent. They got only 20 percent from the capital markets. In 1937, their own

²⁰ Ibid., p. 3571.

²¹ These are essentially the same figures discussed by Altman in Hearings before the Temporary National Economic Committee, Part 9, pp. 3693-3695, brought up to date. The data were prepared by the Division of Research and Statistics, Board of Governors of the Federal Reserve System.

savings provided 57 percent; conversion of assets, 16 percent; and the capital (and credit) markets, the balance of 27 percent.

The extent to which the business doing the saving controlled investment varied with the types of companies. During 1930-38 the funds available from internal sources to 7 large automobile companies, including General Motors Corporation, were 31 percent greater than all their outlays for plant and equipment. Eleven large oil companies met 95 percent of their expenditures for plant and equipment from funds accumulated from internal sources. Nine steel companies, including the United States Steel Corporation, met 58 percent of these outlays from internal sources,²² despite the fact that some branches of the steel industry have undergone virtually a technological revolution in the last decade.

Altman presented data summarizing the situation for all American business enterprises. From 1923 to 1929, business enterprises invested on the average 8.7 billion dollars each year in plant and equipment. Of this, 6.4 billion dollars, or 74 percent, came from funds accumulated from internal sources. After the depression, the ratio was somewhat higher. During the 5 years 1935-39, average outlays for plant and equipment were 5.8 billion dollars. Of this amount, 4.8 billion dollars, or 83 percent came from internal sources (see table 53).²³

TABLE 53.—*Financing business investments in plant and equipment, 1923-39*
(In millions of dollars)

Year	Gross saving			"Productive" security issues ³	Outlays for plant and equipment ⁴
	Net saving ¹	Depreciation and depletion ²	Total		
1923	2,432	3,190	5,622	1,624	7,902
1924	1,463	3,282	4,745	1,941	7,650
1925	2,851	3,976	6,827	1,824	8,189
1926	2,223	4,551	6,774	1,801	9,126
1927	996	4,487	5,483	1,781	8,777
1928	2,830	4,799	7,629	1,495	8,846
1929	2,390	5,145	7,535	1,787	10,157
1930	-4,954	5,118	164	1,939	8,340
1931	-7,781	4,897	-2,884	796	5,123
1932	-8,446	4,550	-3,896	203	2,799
1933	-2,488	4,354	1,866	106	2,371
1934	-828	4,265	3,437	63	3,436
1935	377	4,291	4,668	94	4,349
1936	1,152	4,414	5,566	379	5,783
1937	946	4,609	5,555	635	7,570
1938	-1,285	⁵ 4,350	3,065	417	5,389
1939	829	⁵ 4,550	5,379	191	6,135

¹ Refers only to nonfinancial business enterprises. Net saving as reported by the Department of Commerce, Survey of Current Business, June 1940. Data for financial enterprises, and data for 1923-28 are unpublished.

² All business enterprises. From Solomon Fabricant, *Capital Consumption and Adjustment*, New York, National Bureau of Economic Research, 1938, pp. 32-33, 38. Estimates for 1936 and 1937 are preliminary, and are used with permission of Dr. Fabricant and the National Bureau.

³ Compiled by Moody's Investors Service. "Productive" issues are those adding to capital goods, by raising funds for new construction, additions, improvements, and purchase of new equipment.

⁴ Estimates by George Terborgh. See Federal Reserve Bulletin, September 1939, and February 1940.

⁵ Estimated.

Source: Adapted from Hearings before the Temporary National Economic Committee, Part 9, p. 4041.

²² Hearings before the Temporary National Economic Committee, Part 9, pp. 3693-3694, 4046-4048.

²³ *Ibid.*, pp. 3684, 3692. Data have been revised in accordance with the latest estimates of the Department of Commerce (June 1940).

The amounts of funds available from internal sources are understated by the preceding calculation for four principal reasons, particularly in periods of depression and falling prices. (1) In many cases business expenditures for machines, implements, dies, small tools, and other plant additions are charged directly to the income account. (2) Every year business enterprises receive insurance settlements for property that has been destroyed by fire, shipwreck, flood, and other damage. The value of these settlements is not available, but a conservative estimate would indicate that business enterprises receive at least \$150,000,000 a year for losses covered by insurance. (3) The establishment of contingency and other reserves, when charged to current income, reduces current undistributed profits or business savings. For example, when a reserve is set up in connection with a portfolio of market securities, or with accounts receivable, and these reserves are charged to current income, the profits of the business enterprise are reduced, but the enterprise has as much funds after the bookkeeping reduction of net profit as before. (4) Another source of understatement, particularly in periods of business recession and price decline, is the current accounting treatment of inventory. Inventory write-downs in such periods are substantial, but they present no similar problem in periods of prosperity and increasing prices. When prices remain constant or increase, goods are charged in and out at cost; and inventories at year-end are not revalued, because they are valued at cost or market, whichever is lower. During periods of falling prices, however, the application of the same accounting principle of cost or market, whichever is lower, has quite different results. Inventory charged out at one price may be replaced by inventory purchased at a lower price, but at the end of the fiscal year all of the inventory is revalued. All of the goods purchased at higher prices are revalued down to the prevailing price level. The amount of gross saving is not decreased, however, when inventory is marked down, for example, from \$1,000,000 to \$800,000 and the difference of \$200,000 is charged to profit and loss.

Internal financing, not security issues, provides the bulk of "venture capital" for American industry. For only in a financial sense are depreciation and depletion funds used for replacement. The new building is not the same as the old, and the new machine is the best, the most efficient that can be bought. Funds from all sources—from depreciation and depletion, from retained earnings, from new security issues, from sale and conversion of assets—are commingled. They become one investment fund. All investment is financed from this one fund. The steel industry in the past decade has been revolutionized with its four-high strip mills, automatic operations, and shift to lighter steel products. General Motors Corporation has "ventured" into refrigerators, Diesel engines, and Allison liquid-cooled airplane motors. E. I. du Pont de Nemours & Co., Inc., stated that in 1937, 40 percent of their sales came from products which they had not begun to make in 1928.²⁴ The Monsanto Chemical Co. reported that products which they began to manufacture after 1929 accounted for 39 percent of total sales in 1939.²⁵ These and countless similar examples are all "ventures"; they were all made possible by investments using "venture capital." But the bulk of the "venture capital" came from internal sources.

²⁴ Annual Report, 1937, pp. 12-13.

²⁵ Annual Report, 1939, p. 4.

When businesses invest their own funds it must not be assumed that the actual savers are identical with those who make the investment decisions. In legal theory the savers are the stockholders, though in practice it is the managers who decide how much should be set aside for reserves and expansion. They handle other people's money, though the corporation does not. In theory the stockholders have the right to determine whether investment of the earnings of their property should be made at all, and how much. Actually, in most cases, they play no effective part in the decisions.

Private Placement.

Where business concerns seek to invest funds other than those they have themselves saved, they have to go to a lender or broker. They then issue bonds or other securities and offer them for sale. If the buyer bypasses the investment banker by direct negotiation and direct sale, the process is known as private placement. During the 5 years 1934-38 the 26 largest legal reserve life insurance companies purchased 1.8 billion dollars of corporate bonds privately from the issuing corporations.²⁶ The total amount of corporate bonds and notes privately placed with all purchasers during this period was 2.1 billion dollars. Their relative importance is indicated in table 54.

TABLE 54.—*Total corporate bonds and notes issued and amounts placed privately, 1934-38*

[In millions of dollars]

Year	Bonds and notes issued	Bonds placed privately	Percent placed privately
1934.....	510	94	18.4
1935.....	2,594	385	14.8
1936.....	4,215	402	9.5
1937.....	1,689	423	25.0
1938.....	2,160	710	32.9
1939.....	1,932	747	38.7

Source: Hearings before the Temporary National Economic Committee, Part 9, p. 4065, as revised by the later tabulations of the Securities and Exchange Commission.

The \$2.8 billion of corporate bonds and notes placed privately during 1934-39 have meant a loss in gross profits of at least \$60,000,000 to the investment banking industry.

Private placement is undoubtedly dependent upon, if not caused by, the concentration of savings in savings institutions. If three or four insurance companies buy sections of a private placement amounting to \$10,000,000, \$20,000,000, or more, it is their size and concentration of savings which determines their proportionate shares. This concentration and the resulting magnitude of the investment problem as illustrated by the life insurance companies is dealt with in the next chapter.

THE ROLE OF THE BANKER

One of the major achievements of the Pujo Committee was the documentation, in part, of the controls exercised by investment bankers over railroads, public utilities, insurance companies, and

²⁶ Hearings before the Temporary National Economic Committee, Part 10-A, p. 132.

major industries.²⁷ Extensive diagrams portray the spheres of influence of such well-known banking firms as J. P. Morgan, Kuhn-Loeb, etc.²⁸ But the large volume of savings, the concentration of individual savings in savings institutions, and the relative importance of internal financing, particularly for the larger corporations, have left their impression upon the capital markets. They have changed the scope and the nature of commercial banking, and they have reduced the area of investment banking.

The traditional field of the commercial banks has always been regarded as the making of short-term commercial loans. For two decades, however, commercial loans in particular, and short-term loans in general, have steadily been decreasing in importance. In 1921, short-term loans constituted 70 percent of all member bank loans and investments, and commercial loans by themselves constituted 52 percent. In 1929, short-term loans were 63 percent and commercial loans 36 percent of their loans and investments. By 1938, short-term loans were only 34 percent of loans and investments, and commercial loans had fallen to 23 percent of the total.²⁹

The growing self-sufficiency of large business enterprises has made them for the most part independent of bank credit. It has been an important factor in the decline of the commercial and short-term loan. During the 1920's many corporations paid off their bank debts through the issue of bonds and stock, attacking the field of short-term credit from another angle.

As a result the character of commercial banking has changed radically. Two-thirds of all the loans and investments of commercial banks in 1938 represented United States Government, other securities, and real estate loans.³⁰ In consequence, commercial banks now resemble investment trusts buying and selling fixed interest-bearing securities rather than traditional banks investing in commercial paper. Banks have openly recognized their function to provide the Nation's money and to furnish bookkeeping services. They have recognized their status as a service agency, instituting service charges. They have eliminated interest payments on demand deposits, and drastically reduced interest payments on time deposits. The banks have had to uncover new sources of revenue to replace the commercial business loan. They have established personal loan departments to make loans which are largely for consumption purposes; they furnish a large part of the capital for the finance companies, which make similar loans; they have begun to advertise their willingness to make loans on life insurance policies. In large part they finance Government lending activities. The commercial banks hold Government obligations, while ad hoc Government corporations make loans on urban and farm real estate, extend intermediate term loans to business enterprises, make crop and production loans to farmers, finance foreign trade, and engage in other banking activities.

Faced with declining outlets for the profitable use of their funds in short-term commitments, commercial banks have been forced to

²⁷ House Committee on Banking and Currency, Money Trust Investigations, pursuant to H. Res. 429, 504, 62d Cong., 2d sess.

²⁸ National Resources Committee, *The Structure of the American Economy*, Washington, 1939.

²⁹ Hearings before the Temporary National Economic Committee, Part 9, p. 4056.

³⁰ *Idem*.

make long-term investments. Their first attempts in this field bore maturities of 2 or 3 years; soon loans were made for 5 years; and at the present time loans for as long as 10 or 15 years are not unusual. Such loans are competing with and replacing short-term bond and note issues which were formerly handled by the investment banking machinery. Commercial banks recently invaded the prized investment banking field of equipment trust issues by making a 10-year term loan for the purchase of air transports.

Most of these loans bear serial maturities. So important have term loans become that "in some weeks gains in commercial loans by banks in New York City have been accounted for almost entirely by increases in term loans."³¹ A survey by the Board of Governors of the Federal Reserve System of the 400 reporting banks in 101 cities in April 1939 indicated that approximately 25 percent of their outstanding commercial, industrial, and agricultural loans had a term when made of a year or more. About 70 percent of the loans for a year or more had a term when made of 3 years or more. The size of these loans is evidence that they do not represent accommodation for small business. Fifty-six percent were for \$1,000,000 or more, 32 percent for amounts ranging from \$100,000 to \$1,000,000, while the remaining 12 percent were for amounts smaller than \$100,000.³²

The role of the investment banker in supplying funds for the expansion of American industry is subordinate to internal financing and direct investment by individuals. Furthermore, investment banking has never financed more than a small segment of American investment. It is not now, nor has it ever been, concerned with the financing of small business enterprises, farms, and small homes. It has played little more than a minor role in the financing of new business enterprises and of large-scale real estate developments. Even in 1929, when the country was most conscious of its investment banking machinery, it is doubtful whether this machinery was directly concerned with as much as a fifth of the country's total investment in plant, machinery, and other capital goods.

In recent years even this small share has been diminishing. Corporate financing has tended more and more to by-pass the investment banker. The major reasons for this development appear clearly from certain intensive studies which the Securities and Exchange Commission has made of the sale, redistribution, and mechanics of placement of several high-grade bond issues. These studies, together with a comparable study by an investment banking firm, indicate that, on the average, sales by the investment banking (distributing) group during the first week after public offering were made as follows:³³

Buyer and percent of issue bought

Banks.....	46.5
Insurance companies.....	38.1
Charitable and educational foundations.....	3.8
Security dealers.....	5.1
Individuals.....	6.6
Total.....	100.0

³¹ New York Times, July 14, 1940.

³² Federal Reserve Bulletin, July 1939, pp. 560-562.

³³ Hearings before the Temporary National Economic Committee, Part 24, exhibit 2074, p. 13005.

The institutional character of the buyers' market is clearly indicated. Eighty-eight percent of the first public sales of these publicly issued securities were made to institutions. Furthermore, the major part of the sales to security dealers undoubtedly found their way to institutions within a short time. The difference between distribution effected through public offering and that effected by private placement is blurred when, as in the case of one issue, the distributing group sold 74 percent directly to insurance companies and sold another 19 percent to banks.

Further studies by the Securities and Exchange Commission indicate that the banks are only temporary stopping-places for these bonds.³⁴ The banks resold from one-half to four-fifths of their purchases from the distributing group within 3 months. As might be expected, life insurance companies were the principal purchasers, taking from two-fifths to three-fourths of the total amount resold.³⁵ In addition, the life insurance companies bought blocks of these issues on the open market and from security dealers; they continued to buy during the period studied.

It is, therefore, not surprising to discover that the life insurance companies engaged in a large number of transactions to acquire their holdings. In the case of 2 issues of twenty-five and thirty million dollars, the companies on the average required 67 and 66 separate transactions, respectively; and in the case of 2 larger issues of one hundred and forty and one hundred and thirty million dollars they required 93 and 101 transactions on the average, respectively. Most of these transactions were small. In all, the insurance companies made 4,294 separate transactions in connection with the 5 issues studied. There were 32 purchases in \$1,000 lots and 142 in blocks of \$2,000. More than one-third of the transactions were in blocks of \$5,000 or less. More than three-quarters were in amounts of less than \$30,000, though they accounted for only 21 percent of the total purchased.

In the cases studied, insurance companies were the largest single group of purchasers, but they were obviously put to much time, effort, and expense to acquire the amounts they did. If one may judge by other evidence, they probably did not succeed in purchasing as much of these issues as they wanted to. If the issues had been privately placed, the probability is that the investment bankers' commission would have been divided between the issuing company and the life insurance buyers, with the former getting more for the bonds and the latter paying less for them.

These facts by no means describe all the elements in the controversy between private placement and public offering. They do indicate, however, that private placement has a solid institutional base derived from the concentration of savings and the coming-of-age of

³⁴ *Ibid.*, pp. 13021-13035.

³⁵ In the case of one issue, the United States Steel Corporation 3½'s of 1948, the amount resold to insurance companies was only 7 percent of the total. This issue was different from the others, however, because insurance companies had bought only a small part from the distributing group. The explanation in both cases was that the issue was regarded by the "trade" as a "banking issue" by reason of the short maturity and the industry involved.

both the insurance companies and the issuing corporations. Private placement is merely another change, this time in the field of investment banking, resulting from concentration in industry and finance.

The impact of these forces is such as to take away from investment bankers some part of the power of deciding what industries shall be able to borrow and vest it in the executives of insurance companies and of large industrial corporations. But the banks still determine how a good deal of individual savings shall be invested. Moreover, the investment bankers still exert a large measure of control over our largest industries and even over insurance companies.

WHAT TYPES OF GOODS DO INVESTMENT DECISIONS PRODUCE?

The end product of the investment process is physical capital, the implements of production, items such as homes, offices, bridges, and highways that give off services for a period of years.

The demand for capital is in the main a derived demand. No one wants a steel mill or cement works or glue factory for its own sake, but for the consumable goods it produces. As *Fortune* points out:

The tools and extensions of industrialization do not exist for their own sake. They exist for the individual, known in this connection as the consumer. The entire producers' goods industry whose purpose is the making of tools is quite secondary to the real purpose of industrialization. That real purpose of industrialization may be defined as an increase in the power to consume.

The central economic problem is not a revival in the producers' industry, although that would help. Nor can it be "investment" in the old sense of the word. The central economic problem is simply the conversion of a high potential power to consume into an actual power to consume.³⁶

New aircraft plants or rayon plants or bridges or homes are built because there is an active consumer demand for the product or service. The larger the volume of consumption, the faster goods move and the more capital formation takes place. (See table 55.) In the words of the Brookings Institution:

We found from a study of our industrial history that the growth of capital is *closely adjusted to and dependent upon* an expanding demand for consumption goods. * * * Fluctuations in the construction of capital goods have usually followed rather than preceded fluctuations in the output of consumption goods. The controlling importance of consumption was, however, more conclusively revealed by the discovery that the rate of growth of new plant adjusted to the rate of increase of consumptive demand rather than to the volume of savings available for investment purposes.³⁷

³⁶ *Fortune*, "United States Industrialization," February 1940, pp. 50, 160.

³⁷ Harold G. Moulton, *Income and Economic Progress*, Brookings Institution, Washington, 1935, p. 43. [Italics in original.]

TABLE 55.—*Income-producing expenditures that offset saving and gross national income, 1921-39*

[In millions of dollars]

Year	Gross national income	Income-producing expenditures that offset saving							Adjusted total ⁷	Adjusted total as percent of gross national income
		Plant and equipment ¹	Private housing and non-profit construction ²	Change in inventories ³	Foreign balance ⁴	Government ⁵	Change in consumer credit ⁶	Total		
1921	63,751	5,233	2,313	47	1,327	648	⁸ -20	9,548		
1922	64,295	5,784	3,801	514	293	748	⁸ 730	11,870	10,941	17.0
1923	74,784	7,902	4,821	2,964	-91	348	⁸ 1,046	16,990	14,942	20.0
1924	75,161	7,650	5,229	-1,056	530	615	311	13,279	14,763	19.6
1925	79,686	8,189	5,750	1,523	199	529	842	17,032	15,531	19.5
1926	84,813	9,126	5,535	1,246	-39	244	648	16,760	16,869	19.9
1927	82,708	8,777	5,357	308	301	368	217	15,328	15,901	19.2
1928	86,167	8,846	5,019	102	518	733	821	16,039	15,755	18.3
1929	89,984	10,157	3,761	2,146	240	696	987	17,987	17,208	19.1
1930	79,764	8,340	2,291	-631	388	1,502	-613	11,277	13,961	17.5
1931	63,901	5,123	1,735	-1,190	47	3,784	-1,128	8,371	9,533	14.9
1932	47,446	2,799	709	-2,369	32	2,604	-1,485	2,290	4,722	10.0
1933	46,217	2,371	458	-1,106	195	1,117	150	2,885	2,647	5.7
1934	55,839	3,436	521	-1,552	460	2,271	415	5,551	4,485	8.0
1935	61,681	4,349	913	767	183	2,959	858	10,029	8,238	13.4
1936	⁸ 71,400	5,783	1,536	1,790	-152	3,964	1,355	14,276	12,577	17.6
1937	⁸ 79,400	7,570	1,908	3,072	-13	877	891	14,305	14,293	18.0
1938	⁸ 70,800	5,389	1,817	-604	1,026	1,922	⁹ -1,400	⁹ 8,150	⁹ 10,612	⁹ 15.0
1939	⁹ 75,710	⁹ 6,135	⁹ 2,270	⁹ 990	⁹ 781	⁹ 3,573	⁹ 900	⁹ 14,649	⁹ 12,049	⁹ 15.9

¹ Estimated by George Terborgh.² Estimates by D. L. Wickens and R. R. Foster for the National Bureau of Economic Research, the Department of Agriculture, and the Department of Commerce.³ Principally from Simon Kuznets, *Commodity Flow and Capital Formation* (1938).⁴ From the Department of Commerce.⁵ Computed by the Board of Governors of the Federal Reserve System.⁶ Estimates for 1923-37 by Rolf Nugent; other years, by the Board of Governors of the Federal Reserve System.⁷ Equal to 60 percent of the current year, plus 40 percent of the preceding year.⁸ Estimated.⁹ Preliminary.

Source: Hearings before the Temporary National Economic Committee, Part 9; Savings and Investment, pp. 4010-4018, 4122, as revised, where sources and methods are described.

From the last column of table 55 it is probable that less capital was required on the average in the 1930's to produce a given volume of national income than in the late 1920's.

Some of the more important factors leading toward increased productivity in recent years have been increasing utilization of large-capacity equipment, accompanied by decreases in equipment expenditures per unit of capacity; use of industrial measuring, recording, and controlling devices; improvements in the composition of metals, varnishes, and lacquers, and in concentration processes; biological improvements; and managerial improvements resulting in better factory lay-out, and more effective flow of production.

The effects of increases in productivity upon investment are strikingly clear in many industries.³⁸ For example, investment in fixed capital in the automobile industry in 1938 was 38 percent less than in 1926, while output (of vastly improved quality) increased by 22 percent.³⁹

In 1926 the fixed capital invested in the iron and steel industry was valued at 3.8 billion dollars; in 1937, at 3 billion dollars; yet capacity

³⁸ See Work Projects Administration, *National Research Project, Production, Employment, and Productivity in 59 Manufacturing Industries, 1939-40*.³⁹ Spurgeon Bell, *Productivity, Wages, and National Income*, Brookings Institution, Washington, 1940, pp. 288-290, 299.

was 57.8 million tons in the former year, compared with 69.8 million tons in the latter.⁴⁰ The data presented by the United States Steel Corporation to the Temporary National Economic Committee illustrate these trends for one company. Between 1926 and 1937 the book value of fixed assets decreased from 1.7 billion dollars to 1.4 billion dollars, but ingot capacity increased from 22 to 25 million tons.

The estimated value of fixed capital in the privately owned segment of the electric light and power industry was 7 billion dollars in 1926 and 10.9 billion dollars in 1938; output (measured in index numbers) rose from 106 in 1926 to 239 in 1938.⁴¹ Thus, from 1926 to 1938 investment increased by 56 percent, but output increased by 125 percent.

In the railroad industry, with a 17 billion dollars investment in plant and equipment, creosoting has more than doubled the life of ties and heavier rails and steel rolling stock have reduced replacement costs. Locomotive tractive power has increased, more efficient locomotive designs and the widespread use of water treatment have reduced repairs and increased both the capacity and the life of steam engines. The decrease in passenger traffic, the decline in less-than-carload-lot shipments, and the increase in the average length of haul have reduced the wear and tear. Utilization of existing plant has increased. Train speeds have increased sharply, and terminal facilities operate with greater rapidity.

Finally, in the machine tool industry a recent survey indicated that of a total of 11,610 machines purchased in 1936-37, the 4,666 acquired for the specific purpose of replacing old ones were substituted for 7,377 machines. "It may well be assumed that the total capacity of the machines used for replacement was at least equal to that of the machines which were scrapped."⁴²

Plant and Equipment.

As table 55 indicates, investment in plant and equipment by all business enterprises totaled 10.2 billion dollars in 1929 (4.6 billion dollars for plant, 5.6 billion dollars for equipment), 7.6 billion dollars in 1937 (2.3 and 5.3 billion dollars respectively), and 6.2 billion dollars in 1939 (1.9 and 4.3 billion dollars respectively).⁴³ Equipment outlays of 5.3 billion dollars for all enterprises in 1937 were higher than those of any year in the 1920's except 1929. In view of decreases in prices and increases in productivity during the period, the equipment outlays in 1937 undoubtedly reflected more real investment and substantially more productive capacity than in 1929. But plant outlays followed a different course. The 2.3 billion dollars of plant outlays in 1937 were less than those in every year in the 1920's, and only half the outlay in 1929.

Many contend that increases in productivity, particularly those designated as "managerial," have reduced the demand for plant in relation to equipment. Following an exhaustive study of changes in productivity, it was reported that—

In the automobile industry particularly, but in other manufacturing industries as well, improvements in plant lay-out appear to have been greatly

⁴⁰ Data compiled by the American Iron and Steel Institute, as of January 1. Cf. Bell, *op. cit.*, pp. 288-289.

⁴¹ Bell, *op. cit.*, pp. 275-277.

⁴² David Weintraub, *Effect of Current and Prospective Technological Developments Upon Capital Formation*, Report G-4, National Research Project, Work Projects Administration, pp. 12-13. (Reprinted in *American Economic Review Supplement*, vol. 29, 1939, pp. 15-32.)

⁴³ From estimates of George Terborgh, "Estimated Expenditures for New Durable Goods, 1919-38," *Federal Reserve Bulletin*, September 1939 and February 1940. For evaluation and greater detail see Temporary National Economic Committee Monograph No. 37, especially appendixes III, IV, and VI.

stimulated by the depression, with resulting better continuity of the flow of work and savings in direct and supervisory labor, equipment, floor space, and inventories.⁴⁴

For example, in 1934 through changing its lay-out, Packard cut floor space per unit of output nearly in half, and was left with a vacant building. When Western Electric substituted straight-line for functional manufacture it reduced its required floor space by 17 percent.⁴⁵ At the levels of industrial production which have prevailed in the last decade it has been possible to modernize machinery and equipment without adding substantially to plant floor space.

Annual expenditures for equipment did not increase greatly from 1923 to 1928. Currie testified that during this period "despite rapidly increasing production, despite rapidly increasing consumption, and despite the smallness of the increase in equipment expenditures, there was no evidence of any growing strain on our productive facilities."⁴⁶

Plant and equipment outlays in mining and manufacturing, and in agriculture, recovered almost completely between 1929 and 1937, but investments therein by railroads and transit companies in 1937 were 63 percent and 75 percent, respectively, of the 1929 totals, while those in the electric power and telephone industries were only 52 percent and 57 percent, respectively.

Agricultural outlays for equipment were 14 percent higher in 1937 than in 1929, despite the fact that outlays for plant were more than one-third lower. The growing strides of mechanization are indicated by the continued high level of post-depression equipment expenditures: 1936-39 was 6 percent higher than 1926-29, despite the increases in productivity and the decreases in prices that had occurred in the meantime.⁴⁷

Railroad outlays for plant are far short of the level of the late 1920's; the abandonment of trackage is continuing, while the construction of new unified railroad terminals in the 1920's did not need to be repeated or extended in the 1930's. Equipment expenditures in 1937 were as high as in 1929, though less than half of what they had been in 1923. The volume of carloadings has decreased by one-third from 1926-29, the average number of serviceable freight cars and locomotives needed has decreased because of striking increases in the speed and efficiency of railroad transportation.

Residential Construction.

Since a separate chapter is devoted to housing,⁴⁸ the discussion here is restricted to a few pertinent facts. Housing does not follow the cycle of general business, but traces a pattern all its own of roughly 15-year swings. The volume of construction rose from 2 billion dollars in 1919 to a peak of 5.1 billion dollars in 1925, declined steadily during the next 8 years to a low of 375 million dollars in 1933, and rose steadily to 2.1 billion dollars in 1939.⁴⁹ The trend is still upward.

In 1939, 76 percent of all new dwelling units were one-family houses, as opposed to but 59 percent in the years 1924-26. The rapid shift

⁴⁴ Weintraub, *op. cit.*, pp. 12-13.

⁴⁵ *Ibid.*, pp. 12-13, footnote 29.

⁴⁶ Hearings before the Temporary National Economic Committee, Part 9, p. 3524.

⁴⁷ George Terborgh, "Estimated Expenditures for New Durable Goods, 1919-38," *Fed. Res. Bull.*, Sept., 1939.

⁴⁸ Ch. XIII.

⁴⁹ Terborgh's estimates (Temporary National Economic Committee Monograph 37, appendix III). Kuznets' estimates (*ibid.*, appendix I) show a similar pattern.

of population to the Pacific coast and to Texas has increased the proportion of new units built there as opposed to New England.

About 1 house out of 6, or about 4,000,000 units, are "unfit for human occupancy or in need of major repairs."⁵⁰ In 1939 the American people invested in about 465,000 new units, of which only 6,041 were made available by the United States Housing Authority. Practically no new houses are being built that those 19,000,000 (or, roughly, two-thirds of our families) who get less than \$1,500 a year income can afford.⁵¹

It is not impossible to provide new dwellings in proportion to the distribution of incomes within the community. The experience of England and Wales is instructive. In 1934-35, 45 percent of the families in England and Wales had incomes comparable to incomes of less than \$1,000 in the United States. Fifty-one percent of the new dwellings constructed in England and Wales during these years was designed for the occupancy of this income group. In the United States, on the other hand, 36 percent of all nonfarm families had incomes of less than \$1,000 in 1935, whereas 10 percent of the new dwellings were designed for this group.⁵²

Public Construction.

Public construction outlays during 1921-29 averaged 2.7 billion dollars per year, or 23 percent of all construction outlays in the United States. (Maintenance is included in both cases.) As the depression deepened, private construction decreased more rapidly than public, so that by 1934 the latter constituted 51 percent of the total. After 1934 there was a slight expansion of private, as compared with public construction. This reduced the share of public construction to 41 percent of the total in 1938.

The absolute volume of public construction, however, did not return to the level of the late twenties until 1936, and the average outlays in 1936-38 were smaller than in 1928-30. (See table 56.)

The sources of the funds for public construction were changed drastically by the depression. Federal funds in the twenties paid for one-eighth of public construction and maintenance; at the present time they pay for more than one-half.

During 1920-29 the Federal Government spent directly an average of \$267,000,000 per year for construction and maintenance, excluding aid to States, which during these years averaged \$79,000,000 per year. Federal funds, directly and indirectly, thus paid for 13 percent of all public outlays for construction and maintenance, and State and local funds paid for the remaining 87 percent—equal to average expenditures of \$2,355,000,000 per year.

⁵⁰ Hearings before the Temporary National Economic Committee, Part 11, p. 4958.

⁵¹ Temporary National Economic Committee Monograph No. 8, p. 23 ff.

⁵² *Ibid.*, p. 4983.

TABLE 56.—*Total construction and the amount and sources of funds for public construction, 1920-39—includes maintenance and part of work relief*¹

[In millions of dollars]

Year	Total construction	Public construction	Sources of funds for public construction		
			Direct Federal	State and local ²	Federal aid ³
1920.....	8,563	2,044	504	1,501	39
1921.....	8,062	2,325	402	1,848	75
1922.....	9,346	2,358	283	1,993	82
1923.....	10,920	2,228	204	1,947	77
1924.....	12,049	2,555	203	2,264	88
1925.....	13,063	2,819	191	2,536	92
1926.....	13,779	2,862	184	2,592	86
1927.....	13,944	3,189	199	2,907	83
1928.....	13,710	3,330	233	3,014	83
1929.....	13,488	3,309	276	2,952	81
1930.....	11,814	3,733	328	3,288	117
1931.....	8,689	3,424	368	2,844	172
1932.....	5,445	2,539	399	1,949	191
1933.....	4,044	1,918	437	1,133	348
1934.....	4,860	2,474	509	1,208	757
1935.....	5,578	2,548	675	1,125	758
1936.....	7,731	3,496	916	1,316	1,264
1937.....	8,376	3,079	643	1,524	913
1938.....	8,225	3,390	603	1,782	1,005
1939.....	9,117	3,806	681	1,986	1,139

¹ Includes 50 percent of work relief expenditures on work relief construction and allocated either to "direct Federal" or "Federal aid" construction.

² Includes construction financed by loans from the Reconstruction Finance Corporation and the Public Works Administration.

³ Includes grants-in-aid, and Work Projects Administration expenditures on State and local projects.

Source: Hearings before the Temporary National Economic Committee, Part 9, pp. 4063-4064. From Department of Commerce, Construction Activity in the United States, 1919-37 (1938), and Survey of Current Business, as revised to date by unpublished material.

These relationships were changed with the depression. Construction outlays financed with State and local funds contracted sharply, and they have not recovered to predepression levels. They fell from 3.3 billion dollars in 1930 to 1.1 billion dollars in 1933 and 1935 and 1.2 billion dollars in 1934, and expanded to only 1.8 billion dollars in 1938, an amount substantially below every year in the twenties except 1920. The share of the Federal Government increased markedly. Construction and maintenance outlays paid for directly by the Federal Government increased from \$276,000,000 in 1929 to \$916,000,000 in 1936, \$643,000,000 in 1937, and \$603,000,000 in 1938. The increase in Federal aid⁵³ resulting in public construction and maintenance was much greater. In no year during the twenties was Federal aid more than \$92,000,000; in 1935 it was \$758,000,000; and the inauguration of the work relief program raised the Federal aid resulting in public construction and maintenance to \$1,264,000,000 in 1936 and \$1,005,000,000 in 1938.

What was built by Government during the past two decades? Highways accounted for the largest share of construction outlays. They took not less than 40 percent of total construction outlays in each of the past 20 years, and as much as 50 percent in some. (See table 57.) In 1929, for example, outlays for highways amounted to

⁵³ Includes grants-in-aid; Federal loans by the Works Projects Administration; and 50 percent of work-relief expenditures for State and local public works, estimated as the physical amount of construction equivalent or comparable to construction by other methods. Does not include loans by the Reconstruction Finance Corporation or the Public Works Administration.

1.2 billion dollars, while total public construction outlays were 2.5 billion dollars. In 1937, 850 million dollars of the total outlays of 2,209 million dollars (excluding relief outlays) went for highways, and an equivalent⁶⁴ of 202 million dollars out of 448 million dollars of Works Progress Administration expenditures for construction were spent for highways.

TABLE 57—Uses of funds for public construction, 1920-39 (maintenance and work-relief construction excluded)

[Millions of dollars]

Year	Total public construction	Highways	Sewerage disposal and water supply	Public educational buildings	Nonresidential buildings, excluding public educational	Naval and military ¹	Conservation and development	Miscellaneous construction
1920	1,536	640	153	197	86	263	55	42
1921	1,753	840	178	279	108	252	52	44
1922	1,786	851	201	348	133	154	48	51
1923	1,645	783	203	359	122	63	65	50
1924	1,904	951	263	369	125	51	79	66
1925	2,142	1,056	278	415	158	42	73	120
1926	2,138	1,039	285	414	189	36	61	114
1927	2,395	1,190	312	382	214	39	63	195
1928	2,499	1,270	300	390	248	52	72	167
1929	2,458	1,248	253	387	255	66	86	163
1930	2,827	1,481	343	361	286	79	111	166
1931	2,615	1,323	270	273	318	78	135	218
1932	1,881	916	156	142	269	73	139	186
1933	1,297	675	81	56	147	84	168	86
1934	1,559	821	131	74	107	114	246	66
1935	1,667	622	159	165	128	169	319	105
1936	2,111	876	215	249	37	212	338	184
1937	2,209	850	174	226	214	219	306	220
1938	2,308	900	179	273	245	253	293	165
1939	2,825	950	255	399	313	352	324	232

¹ Includes expenditures for construction of new vessels.

Source: Hearings before the Temporary National Economic Committee, Part 9, p. 4065. Basic data from U. S. Department of Commerce, Construction Activity in the United States, 1915-37 (1938), table 3, p. 18. Data for 1936-39 are from work sheets of the Department of Commerce.

The relative importance of the various types of public construction outlays (excluding relief expenditures and maintenance outlays) may be seen from the following summaries for 1937 and 1939:

	1937	1939
	Percent	Percent
Highways	38.5	33.6
Sewage disposal and water supply	7.9	9.0
Public educational buildings	10.2	14.1
Nonresidential buildings, excluding public educational buildings	9.7	11.1
Naval and military construction, including new vessels	9.9	12.5
Conservation and development	13.9	11.5
Miscellaneous	9.9	8.2
Total percent	100.0	100.0
Total amount (millions)	\$2,209	\$2,825

It has been indicated that since 1933 the expansion of direct and indirect Federal expenditures for construction merely counterbalanced

⁶⁴ The estimated physical equivalent was 50 percent of the amount of Works Progress Administration expenditure.

the decline in State and local construction outlays.⁵⁵ Total public outlays were not changed by the larger Federal outlay, and hence did not take up any of the slack resulting from the decline of private construction. The divergent trends in public construction outlays are important in any consideration of the divergent trends in the ownership of public property and the course of public debt.

During the twenties the debt of State and local governments increased at the rate of 780 million dollars per year.⁵⁶ Net State and local debt⁵⁷ increased from 6.7 billion dollars in 1920 to 14.5 billion dollars in 1929. During this period the net Federal debt fell from 24.3 billion dollars to 16.7 billion dollars.⁵⁸ The shift in the burden of financing both public construction and relief from State and local governments to the Federal Government has been a major factor in altering the course of government debt. The net debt of State and local governments increased from 15.2 billion dollars in 1931 to only 15.5 billion dollars in 1939 while net Federal debt amounted to 38.4 billion dollars by June 30, 1939.⁵⁹

A good share of this increase in debt is represented by public works of various kinds and by loans and advances. The Federal debt increased by 21 billion dollars in 1931-38; the National Resources Committee estimated that 14.5 billion dollars of this amount was represented by public construction, and by loans, advances, and stock purchases (after write-offs). Depreciation and amortization were estimated at 2.9 billion dollars and net investment at 11.7 billion dollars.⁶⁰ This is approximately the growth of assets that would be shown on Federal accounting records if, like private business records, they capitalized outlays for plant and securities.

CONCENTRATION OF CONTROL OVER INVESTMENT DECISIONS

The decision of when, how much, and where to invest may rest in an individual, a corporate executive, or in the hands of a governmental body. The decision to make a public investment is largely concentrated in the Congress of the United States and other legislative bodies. To the extent that they in fact represent the people, the decision to make public investments rests in the electorate. Only in the case of boss rule is there a concentration of investment decisions in a bureaucracy more or less self-perpetuating. But even the tenure of bosses is short compared with that of the executive personnel of large corporations.

The concentration of decisions to invest in industrial plant and equipment presents puzzling ramifications. What, for example, is the amount of investment in different segments of the economy? What is the concentration of investment within each of these segments, and within the whole economy? How much is invested by large and small business enterprises, by corporations and other types of busi-

⁵⁵ For a survey of Federal outlays and loans to State and local governments under the Public Works Administration, see *America Builds: The Record of PWA*, Washington, 1939.

⁵⁶ Up to May 1938, Moody's Investors Service considered all State and local bond issues as "productive"—that is, as resulting in capital outlays. (See Moulton, Edwards, Magee, and Lewis, *Capital Expansion, Employment, and Economic Stability*, Brookings Institution, Washington, 1940, pp. 349-354.)

⁵⁷ After deduction of State and local securities held in State and local pension, trust, and investment funds.

⁵⁸ After the deduction of Federal securities held in Federal trust and sinking funds.

⁵⁹ Annual Report of the Secretary of the Treasury, 1939, pp. 454, 509-512.

⁶⁰ Hearings before the Temporary National Economic Committee, Part 9, pp. 4090-4095.

ness enterprises, by old and new business enterprises? Who makes investment decisions in different segments of the economy? How large is this group? What is the role of investment bankers, lawyers, accountants, and other professional consultants in determining the amount and direction of investment? What are the background, training, outlook, interest, environment, and other major characteristics of the group of persons responsible for the bulk of our investment decisions? What criteria and data are employed to decide whether or not to invest? Practically nothing is known about some of these questions at the present time, and about none are the data complete.

Recent investigations have thrown much light on the relative importance of different sectors of investment. In table 6 these data on business investment in plant and equipment are summarized for 3 years: 1923, the peak year of railroad investment; 1929, the peak year of business investment; and 1937, the peak year of post-depression business investment.

Business investments in plant and equipment accounted for more than half of total investment in 1923, 1929, and 1937. How many business enterprises were responsible for the bulk of this investment?

Table 58 shows that 26.9 percent of business investment in 1929 was made in the field of transportation and public utilities, a field predominantly characterized by large enterprises. The investments made by individual companies in the various lines of enterprise can be calculated only with considerable difficulty. On the other hand, the concentration of capital assets, after deduction of reserves for depreciation and depletion, furnishes a rough index of the flow of investment.

TABLE 58.—*Business investment in plant and equipment in major segments of the economy, 1923, 1929, and 1937*

Industry	1923	1929	1937
Total business investment in plant and equipment (millions of dollars).....	7,902	10,157	7,570
Transportation and utilities:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Railroads.....	13.6	8.3	6.9
Electric power.....	9.2	7.6	5.3
Telephones.....	4.0	6.1	4.6
Transit.....	2.3	1.3	1.3
Other utilities.....	3.1	3.6	2.1
Total.....	32.2	26.9	20.2
Mining and manufacturing: Total.....	33.9	35.4	41.3
Other:			
Agriculture.....	9.5	9.6	12.2
Commercial and miscellaneous.....	24.4	27.9	26.3
Total.....	33.9	37.7	38.5
Grand total.....	100.0	100.0	100.0

Source: Terborgh's estimates. See appendix III of Temporary National Economic Committee Monograph No. 37.

A special study of corporation income tax returns by the National Resources Committee⁶¹ compiled data on a consolidated basis of assets

⁶¹ National Resources Committee. *The Structure of the American Economy*, Washington, 1939, appendix 11, p. 286.

and income in major lines of activity. According to this study the 92 largest transportation and other public utility corporations held 81.9 percent of the net (depreciated) capital assets in this group in 1929, and the largest 92 corporations held 88.4 percent of the net capital assets in 1933. The Statistics of Income for 1937⁶² furnishes the latest data available on this point, although these data seriously understate the degree of concentration, since most of the returns are filed on an unconsolidated basis. (The studies of the National Resources Committee show that the degree of concentration, for this purpose, is understated even when corporations file on a consolidated basis.) In 1937 there were 114 transportation and other public utility companies with assets of more than \$100,000,000; and these companies held 63 percent of the net capital assets in the group.

Investment decisions in this field were even more concentrated than these data indicate. Apart from the common and interlocking directors, who constitute a significant fraction of the total executive officials in the field,⁶³ the holding company structures in electric light and power, natural gas, water, and railroads still further concentrate the number of companies and therefore the number of persons ultimately responsible for investment and other business decisions.

Approximately 40 percent of business investments in plant and equipment are made in the fields of manufacturing and mining. Holdings of net capital assets in these fields, and consequently investment and investment decisions, show a substantial degree of concentration. In 1929 the 82 largest manufacturing corporations held 42 percent of the net capital assets of all manufacturing corporations; and in 1933 the 78 largest manufacturing corporations held 46 percent of the net capital assets.⁶⁴ Data in the Statistics of Income for 1937, though understating the degree of business concentration, indicate that the 77 manufacturing corporations with assets of more than \$100,000,000 held 34 percent of the net capital assets in the group. The concentration in the manufacturing subgroups naturally varies with the character of the product and the nature of the technology employed. The situation in a few industrial subgroups may serve to illustrate the situation:

Thirty-nine liquor and beverage companies had assets of more than \$5,000,000; they held 28 percent of the net capital assets in the group.

Fifteen tobacco companies had assets of more than \$10,000,000; they held 81 percent of the net capital assets in the group.

One hundred and nine apparel and clothing companies had assets of more than \$1,000,000; they held 36 percent of the net capital assets in the group.

Thirty-four printing and publishing companies had assets of more than \$10,000,000; they held 24 percent of the net capital assets in the group.

Three motor-vehicle companies had assets of more than \$100,000,000; they held 68 percent of the net capital assets in the group.

Though construction and trade are widely diversified industries, the 14 corporations in the construction group in 1937 with assets of more than \$10,000,000 held 22 percent of the construction net capital assets, while the 173 corporations in the trade group with assets of more than \$10,000,000 held 30 percent of the trade net capital assets.

Corporations play a relatively small part in agriculture and related industries. This corporate segment, however, shows some degree of

⁶² U. S. Treasury Department, Washington, 1939.

⁶³ The Structure of the American Economy, appendix 12, p. 298 ff.

⁶⁴ *Ibid.*, appendix 11, p. 285.

concentration. The 48 corporations with assets of more than \$5,000,000 held 24 percent of the net capital assets in the group.

This discussion of concentration is not concerned with the presence or absence of competition, or with the price, production, or other business policies flowing therefrom. It is directed merely to the number of business enterprises responsible for the bulk of business investment. The 200 largest nonfinancial corporations in 1933 held 64 percent of the net capital assets of all corporations.⁶⁵ They probably account for at least the same proportion of business investment. It is probable that 5,000 business enterprises hold two-thirds of net capital assets and therefore account for a similar percentage of business investment. Since there are approximately 2,100,000 business enterprises in the United States at the present time, one-quarter of 1 percent of all business enterprises are responsible for two-thirds of business investment.

How large is the group of men responsible for business investment? No studies have been made on this point, but *Fortune*, in an article on "The 30,000 Managers," estimated that there were probably 4 or 5 officials in each of the larger companies who were really responsible for the determination of business policy.⁶⁶ Taking the dominant group of business enterprises as approximately 5,650 on the basis of sales and assets, and assuming 4 to 5 top executives per company, and adding several thousand lawyers, accountants, investment bankers, and other professional persons, *Fortune* estimated that 30,000 persons constitute the "managers" of our business economy. This estimate does not seem too small. On the contrary, decisions with respect to business policy may probably be ranked according to the number of officials responsible for policy varying with the type of decision under consideration. The decision of how much, when, and where to invest is admittedly a most important policy decision, and is made by a relatively small group, usually the finance committee.

Furthermore, even separate business enterprises to some degree fall into "interest groups." The National Resources Committee analyzed eight such groups, and found that the assets of the corporations in these groups aggregated \$98,000,000,000 in 1935, distributed as follows: Railroads, \$24,000,000,000; utilities, \$25,000,000,000; industrials, \$25,000,000,000; and banks, \$24,000,000,000.⁶⁷ No quantitative effect can be assigned to the activity of these "interest groups," but their activity is clearly to limit and reduce the number of business executives responsible for investment decisions.

It is likewise probable that the control of investment decisions has become relatively more concentrated within the past two decades. Large corporations have become relatively more important in the economy through growth, merger, and absorption. The automobile, electric light and power, copper mining, air transportation, and petroleum industries are illustrations. The growth of hotel, food, drug, variety, and other chains has concentrated investment decisions in these fields. The number of new enterprises started each year has declined in recent years, while the number of business enterprises per thousand of population declined from a high of 18.5 in 1926 to 15.6 in 1933-35, and then increased slightly to 16.1 in 1938.⁶⁸

⁶⁵ Structure of the American Economy, p. 284.

⁶⁶ *Fortune*, February 1940, p. 58.

⁶⁷ Structure of the American Economy, appendix 13, pp. 306 ff.

⁶⁸ From estimates of population and number of business enterprises in Statistical Abstract of the United States, 1939, Washington, 1940, pp. 2 and 307.

With regard to two of the questions posed at the beginning of this section—what kind of people make business investment decisions and what criteria they employ—the data leave much to be desired. Taussig and Joslyn in 1932 made a comprehensive study of the social classes that supply American business leaders and of the relative importance of hereditary and environmental factors in determining the class from which they spring.⁶⁹

The bulk of American leaders come from business or professional backgrounds and from corresponding income levels. Business families make the largest contribution to the class of business executives; laboring families make extremely small contributions. A large and increasing proportion of American business executives have college or technical training.

Even less is known of the criteria that actually determine investment decisions. There are theoretical formulations of the criteria that determine investment and expansion.⁷⁰ But it is important to know what social, personal, and political elements determine when, how much, and where investment will be made. It has been alleged that some telephone and public utility companies expanded their investment programs in 1930 in response to requests by President Hoover; is it generally true that noneconomic considerations affect investment decisions? The hearings on the sale of foreign securities in 1931-32⁷¹ indicated that in some cases the export of American capital was facilitated by special rewards (undisclosed at the time) to various foreigners, and by high commissions to investment bankers. To what extent may investment decisions be affected by institutional factors of this character? To what extent do social conditionings affect the direction and the timing of investment? No answer can be given to any of these questions at the present time.

On the role of profits, however, new evidence has been gathered and presented to the Temporary National Economic Committee. High rates of profit do not of themselves attract new investment, nor low rates deter it. For example, exhibit No. 2441⁷² (see also table 59) shows that in even so profitable an industry as the manufacture of automobiles capital has been going out of the industry ever since 1926. In fact, the most extensive investment made there was made by the Ford Motor Co. when it changed from model T to model A. In the steel industry similar large investments were made in 1934 and 1935 to put up new automatic high-speed strip-rolling mills. If high profit rates always attracted new investment, a business boom would never end. Nor is certainty of making a profit a substantial factor. The great uncertain periods of war are uniformly periods of large-scale investment, as are periods of rapid technological change or large-scale migration of population and industry.

⁶⁹ F. W. Taussig and C. S. Joslyn, *American Business Leaders*, Macmillan, New York, 1932. See the references there given and F. L. Allen, *Lords of Creation*, Harper, New York, 1935.

⁷⁰ Among the recent works in this field, the following may be cited: J. R. Hicks, *Value and Capital*, Oxford, Toronto, 1939; A. G. Hart, "Anticipations, Business Planning, and the Cycle," *Quarterly Journal of Economics*, February 1937; Ben W. Lewis, "The Corporate Entrepreneur," *Quarterly Journal of Economics*, May 1937.

⁷¹ Hearings before the Senate Finance Committee on the sale of foreign bonds and securities in the United States, pursuant to S. Res. 19, 72d Cong., 1st sess.

⁷² Hearings before the Temporary National Economic Committee, Part 30, p. 17310.

TABLE 59.—*Rates of return on invested capital for 3 major automobile companies, 1927-37*

Year	General Motors	Chrysler	Ford	Year	General Motors	Chrysler	Ford
1927	48.77	43.49	-3.97	1934	15.19	11.10	3.75
1928	45.75	34.91	-10.31	1935	25.62	40.61	3.25
1929	37.02	19.37	13.73	1936	32.82	61.12	3.98
1930	20.71	.71	5.79	1937	28.23	48.89	1.45
1931	15.64	4.35	-4.93	Average	25.25	23.59	.04
1932	1.34	-6.86	-10.46				
1933	12.57	15.68	-1.20				

Source: Federal Trade Commission, Report on the Motor Vehicle Industry, Washington, 1939, pp. 487, 618, 671.

Factors other than the amount or the rate of profit have been the major determinants of capital expenditures of groups of companies in the same industry, and hence of business as a whole. Of these other factors the most important have been the level of output and the pressure upon business for the introduction of available new technologies.⁷³

Hence the fundamental question can be rephrased to read: "What has restricted the volume of output and the rate of technological advance so that all too frequently they have been inadequate to draw forth the volume of capital expenditures required to expand or to maintain the national income?"

An increase in the degree of concentration of income and wealth raises the volume of capital expenditures required to prevent declines in the national income. This results from the fact that the volume of savings is less when losses and profits accrue to different groups than when they accrue to the same groups, even though net profits or losses are the same in both instances.

Not only does an increase in concentration raise the volume of capital expenditures required to prevent declines in activity but it also lowers the outlets for such expenditures. This latter is a consequence of the fact that concentration limits the extent to which capital expenditures can or will be made for capital goods to take business away from existing facilities.

⁷³ This and the following paragraphs are quoted from Temporary National Economic Committee Monograph No. 12, pp. 131, 133.

TABLE 2.—Ratio of Capital Expenditure to Total Investment, 1927-31

Industry	Ratio of Capital Expenditure to Total Investment
Manufacturing	0.85
Transportation	0.75
Commerce	0.65
Finance	0.55
Government	0.45
Education	0.35
Health	0.25
Recreation	0.15
Other	0.10

Factors other than the amount or the rate of growth have been the major determinants of capital expenditures of groups of companies in the same industry, and hence of business as a whole. Of these other factors the most important have been the level of output and the volume of new business for the industry in question (see below).

It is the fundamental question as to whether or not the rate of growth of output and the rate of technological change are sufficient to require that the rate of investment be increased in order to maintain the volume of capital expenditures required to expand or to maintain the national income.

An increase in the rate of substitution of machines and plants raises the volume of capital expenditures required to maintain the volume in the national income. This is true from the fact that the volume of output is less when less and more scarce to different groups than when they are in the same group, even though the rate of growth is the same in both instances.

Not only does an increase in substitution raise the volume of capital expenditures required to maintain the activity but it also raises the output of such expenditures. This is true as a consequence of the fact that capital expenditures limit the extent to which capital expenditures can be used for capital goods to raise business activity from existing facilities.

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CHAPTER XI

CONCENTRATION OF CONTROL AND INVESTMENTS IN LIFE INSURANCE¹

The discussion of the savings-investment problem in the foregoing chapters has necessarily dealt to no small extent with theoretical principles. A study of insurance company investments affords a concrete illustration. In his message on Strengthening and Enforcement of Antitrust Laws, President Roosevelt stated:

The tremendous investment funds controlled by our great insurance companies have a certain kinship to investment trusts, in that these companies invest as trustees the savings of millions of our people. The Securities and Exchange Commission should be authorized to make an investigation of the facts relating to these investments with particular relation to their use as an instrument of economic power.²

This statement in the President's message became the specific point of departure for the committee's insurance studies. The Securities and Exchange Commission was directed to assemble data on life insurance company investment practices and to examine the affairs of such companies for facts which would throw light on the basic problem of the concentration of economic power. The Commission has submitted a detailed report summarizing the information obtained through its studies and this report has been printed as a committee monograph.³

¹ This chapter was written by Gerhard A. Gesell, special counsel, Securities and Exchange Commission. It was criticized and reviewed by Dr. Theodore J. Kreps, professor of business economics, Stanford University, and Dr. Oscar L. Altman, senior economist, National Resources Planning Board.

² S. Doc. No. 173, 75th Cong., 3d sess., April 29, 1938, p. 8.

The Temporary National Economic Committee made no special study of the operations and practices of investment trusts. Pursuant to section 30 of the Public Utility Holding Company Act of 1935, however, the Securities and Exchange Commission conducted an exhaustive investigation into the activities and operations of investment trusts and investment companies. The Commission has released several parts of its final report covering the nature, classification, and origin of investment trusts and investment companies; a statistical survey of such trusts and companies and a review of certain abuses and deficiencies found in their organization and operation. The Commission's studies led to the enactment of the Investment Company Act of 1940 and the Investment Advisers Act of 1940. Both acts were passed unanimously by the Congress and signed by the President on August 23, 1940.

³ Temporary National Economic Committee Monograph No. 28, Study of Legal Reserve Life Insurance Companies. The Commission's report contains 21 sections dealing with various topics, including the following: Size and growth of legal reserve life-insurance companies; control of life-insurance companies; interlocking directorships; failure of directors to attend board meetings; activities of directors and officers for personal gain; changes of plan of company operation to benefit personal interests of officers and directors; responsibilities of life-insurance company directors; salaries and profits; company retirements; intercompany agreements to eliminate competition; the life-insurance lobby; classes and type of life insurance sold; policy terminations; agency practices; cost of ordinary life insurance; industrial insurance; savings-bank life insurance; operating results; re-ports to bondholders and accounting practices; assets and investment practices. The Committee has also published Temporary National Economic Committee Monograph No. 2, Families and Their Life Insurance, which contains the results of a special survey of the life-insurance holdings of 2,132 low-income families, which the staff of the Commission made in cooperation with the Work Projects Administration.

There has also been published by the Temporary National Economic Committee Monograph No. 28-A containing a statement on life insurance submitted to the committee by the presidents of five life insurance companies on behalf of 178 companies. This statement consists of a commentary from the point of view of life insurance management on various discussions and conclusions in the Securities and Exchange Commission analysis of the life insurance problem contained in Monograph No. 28. This supplementary monograph also contains a rejoinder to the foregoing insurance company criticism.

Monograph No. 28-A in addition contains a statement on "State Supervision of Insurance and the National Association of Insurance Commissioners" which was filed with the Temporary National Economic Committee by Col. C. B. Robbins, manager and general counsel, American Life Convention, on behalf of 137 life insurance companies, the names of which appear at the beginning of the statement, pp. 61-64.

In addition there are six volumes of testimony⁴ comprising nearly a fifth of the total number of volumes of hearings held by the Temporary National Economic Committee. Any attempt to present a condensed report must consequently lean heavily on summaries of facts rather than on the facts themselves.

Among life insurance companies are found the largest corporations in the world, the Metropolitan Life Insurance Co., for example, having assets of over \$5,000,000,000, and investing more than \$2,000,000 every business day.⁵ Their executives are par excellence big business executives. A study of their origins, selection, interconnections, and operations affords thus a striking illustration of large-scale management at work.

Life insurance companies collect funds in small amounts from millions of provident citizens seeking to assure protection in event of need to themselves and their loved ones. From these (and their investments) they collect annually over \$5,000,000,000, an amount greater in ordinary years than the tax collections of the Government of the United States.⁶ In fact, so strongly are payments of insurance premiums regarded as a fixed charge by policyholders that premium income of life insurance companies rose from 4.1 percent of national income in 1929 to 8.8 percent in 1932 and 7.9 percent in 1933, and total insurance income rose from 5.4 percent of national income in 1929 to 11.6 percent in 1932 and 10.9 percent in 1933.⁷ These contractual savings represent from one-half to two-thirds annually of all accumulations by individuals, constituting for millions of families the only savings they have. Life insurance is an important factor affecting the flow and maintenance of consumer spending.

In 1938 life-insurance companies held 44 percent of the assets of the principal savings institutions.⁸ In that year they purchased nearly one-half of all corporate bonds and notes issued. They held about an eighth of all long-term bonds and nearly a fifth of all public utility bonds. They exercise a vital if not dominant influence in the securities markets. They are important owners and managers of farm and urban properties. Life insurance companies are a vital factor affecting the volume, timing, and direction of the flow of investment funds.

There are numerous other phases of concentration of economic power in the life insurance industry evident from the record of the committee, phases of great importance which deserve extended treatment. But the scope of this chapter compels limiting the discussion to:

1. Who are the managers who wield extensive economic power, as illustrated by the life insurance business? How are they selected? What are their interconnections with banks and other corporations? How do they operate?

2. So far as experience in the life-insurance industry is concerned, what is the extent and what are the effects of concentration of economic power over savings and over investment decisions?

⁴ In the course of its life-insurance inquiries the Committee heard 131 witnesses and printed their testimony, together with research results obtained by the staff of the Securities and Exchange Commission, as Hearings before the Temporary National Economic Committee, Parts 4, 10, 10-A, 12, 13, and 28.

⁵ Hearings before the Temporary National Economic Committee, Part 10-A, Life Insurance, pp. 94, 100.

⁶ *Ibid.*, Part 4, Life Insurance, exhibit No. 218, pp. 1177 and 1512.

⁷ *Ibid.*, Part 9, Savings and Investment, p. 4055.

⁸ Statistical Abstract, 1939, pp. 254, 269, 293.

As of December 31, 1938, there were approximately 366 legal reserve life insurance companies operating in the United States.⁹ These companies had assets in excess of \$28,000,000,000 and policies outstanding with a face amount of about \$111,000,000,000.¹⁰ This has been the result of 50 years truly spectacular growth at a rate 25 times as fast as population. In the period since 1910 alone their assets have increased 800 percent.¹¹ Even since 1929 the assets of the principal companies have grown by almost 50 percent.¹² Though the future growth of life insurance companies may not continue at this rapid rate, it bids fair, according to one estimate, to increase until assets reach the \$40,000,000,000 mark in 1950.¹³

The control of more than 54 percent of the total assets rests in only five companies,¹⁴ all of them with assets in excess of 1 billion dollars, the largest, Metropolitan, with assets of 5.1 billion dollars (December 31, 1939). All do business throughout the United States, but all have their main offices in New York City or its immediate vicinity.¹⁵

The assets of life insurance companies represent the major portion of recent net increases in total public saving. From 1929 to 1938, for example, the total assets of principal savings institutions, including life insurance companies and fraternal associations, deposits of commercial banks, assets of mutual savings banks, building and loan associations, Government pension funds and trust funds, total savings deposits and baby bonds increased slightly over \$11,000,000,000.¹⁶ Of this increase, 94.7 percent is accounted for by the increase in the assets of life insurance companies and fraternal associations. These companies now take in over \$4,000,000,000 annually in the form of premiums from their 64,000,000 policyholders. So rapid has been the expansion of the total amount of insurance outstanding that from 1929 to 1938, the total income of principal life insurance companies exceeded by over \$10,000,000,000 both the amount disbursed to policyholders and that needed to meet operating expenses of the business.¹⁷

⁹ The Securities and Exchange Commission confined its studies to legal reserve life insurance companies. These account for about 95 percent of the life insurance in force in the United States. A legal reserve life insurance company is one which agrees to pay a definite sum or benefit that cannot be scaled down, which charges therefor a premium that cannot ordinarily be increased but may be offset somewhat by varying amounts of dividends, and which is required by law to establish, in respect to each policy issued and in force, a reserve as defined by law based on the type of contract, age of issue, and mortality and interest assumptions involved. The reserves in the aggregate constitute a fund which, on the basis of actuarial computation, is deemed exactly sufficient to guarantee that the company will be able to meet its obligations under its outstanding policy contracts as they fall due. (Temporary National Economic Committee Monograph No. 28, p. 5, footnote 1.)

¹⁰ Compiled from the Spectator Life Insurance Year Book, Best's Life Reports, Convention Form Annual Statements, and replies to the preliminary questionnaires of the Securities and Exchange Commission.

¹¹ Hearings before the Temporary National Economic Committee, Part 4, pp. 1170 to 1173, and Exhibit No. 217.

¹² Ibid., Part 10-A, p. 5. The term principal companies as used herein refers to the 26 largest companies whose operations and investments are analyzed in detail in Part 10-A.

¹³ Temporary National Economic Committee Monograph No. 28, p. 12.

¹⁴ Spectator Life Insurance Year Book, 1939. See also Hearings before the Temporary National Economic Committee, Part 4, p. 1195. These companies are, in order of their size, Metropolitan Life Insurance Co., Prudential Insurance Co. of America, New York Life Insurance Co., Equitable Life Assurance Society of the United States, and Mutual Life Insurance Co. of New York.

¹⁵ Hearings before the Temporary National Economic Committee, Part 4, exhibit No. 222, pp. 1514, 1515. As of December 31, 1937, 6 companies with their main offices in New York City and Newark, N. J., accounted for 56.9 percent of the total life insurance assets, and an additional 10 companies with offices in New England accounted for 17.2 percent.

¹⁶ Ibid., Part 28, Life Insurance, p. 14725.

¹⁷ Ibid., exhibit No. 2258, p. 15493. Total income was \$42,679,883,000 and disbursements were \$32,094,901,000. Since 1890 there have been but 4 years in which total premium payments income alone for all legal reserve life insurance companies did not exceed all disbursements, including both disbursements made to policyholders and disbursements required to meet expenses in the administration of the business itself. (Ibid., Part 4, exhibit No. 218, pp. 1175-1178.)

THE MANAGEMENT OF LIFE INSURANCE COMPANIES

Who manage and control the life insurance companies? The affiliations, interests, control, and concentration represented by the directors and officers of life insurance companies were investigated by the Armstrong Committee in 1906,¹⁸ by the Pujo Committee in 1913,¹⁹ and by the Temporary National Economic Committee. All have shown that the life insurance industry is managed and controlled by a small number of men.

Nomination and Election.

Life insurance executives and directors constitute a small group that is self-appointing and self-perpetuating. The facts are discussed first with respect to the mutual companies, which control \$22,000,000,000 of assets, or 80 percent of the total,²⁰ and secondly with respect to the stock companies, which control \$5,000,000,000 of assets.

The mutual companies are theoretically owned and controlled by their policyholders and operated on the principle that each policyholder is entitled to one vote, regardless of the amount of his insurance. But the election mechanism and the legal election requirements make it difficult to nominate or elect any director not sponsored by the management.²¹ Though the policyholders are widely scattered, New York State's insurance statutes require that individual nominations be supported by a petition of one-tenth of 1 percent of the number of existing policyholders.²² In the case of the Metropolitan Life Insurance Co., with its 25,000,000 policyholders, this requires a nominating petition signed by 25,000 policyholders. Securing such a large number of signatures is, even under the most favorable circumstances, difficult and expensive. No policyholder would be financially able to undertake such a task.

Furthermore, the companies do not keep a complete list of all policyholders readily available. The Prudential testified that it had no list of policyholders and that it would find it extremely difficult to prepare one.²³ The Metropolitan said that it had a card record of all persons carrying ordinary life-insurance policies, and that it could prepare a list from this file. Though ordinary life-insurance policyholders in the Metropolitan pay for the bulk of the outstanding insurance, they constitute less than 10 percent of the total number of policyholders. More than 90 percent of the total number of potential voters are industrial policyholders, of which the home office has no list. These lists are decentralized and kept in the various branch agencies charged with the collection of premiums.²⁴

Nomination is thus in the hands of the management, and election of the slate selected by the management is a foregone conclusion. Voting in most cases is a formality.²⁵ In 1938, for example, the directors of the Equitable, a \$2,000,000,000 company, were elected by 532 votes, representing one-twentieth of 1 percent of the eligible voters.

¹⁸ Report of the Joint Committee of the Senate and Assembly (New York) to investigate the life insurance companies, February 12, 1906, vols. 1 to X.

¹⁹ Report of the House Committee on Banking and Currency on Money Trust Investigation, pursuant to H. J. Res. 429, 504, 62d Cong., 2d sess.

²⁰ Compiled from Spectator Year Book, 1939.

²¹ The Metropolitan advertises the approach of an election only after the close of the period within which the policyholders may make independent nominations. (Hearings before the Temporary National Economic Committee, Part 4, p. 1375.)

²² *Ibid.*, pp. 1399, 1405-1406.

²³ *Ibid.*, Part 12, Industrial Insurance, p. 5921.

²⁴ *Ibid.*, Part 4, pp. 1305-1306.

²⁵ But data were presented to indicate that even the formalities were not correctly observed. See *ibid.*, pp. 1295-1296, 1302-1303, 1313-1369, 1398, 1409-1410, and Part 12, pp. 5924-5925.

In that year 1.76 percent of Metropolitan's, and 2.51 percent of Prudential's policyholders voted.²⁶ The average for the 12 largest mutual companies, which at that time accounted for 72 percent of the assets of all American life insurance companies, was even lower, only slightly more than one half of 1 percent of the eligible policyholder votes being cast.²⁷ Even this small percentage of votes is unnecessary, for under section 94 of the New York Insurance Law a single vote is sufficient to elect the slate if no independent nomination has been made.²⁸ In some instances when policyholders have not been notified of their right to vote, it happens that the only policyholders voting are employees of the company.²⁹

Managements seem to have made little effort to keep policyholders aware of their franchise privileges. Many companies do not advise their policyholders in any way with respect to their right to vote. In other cases the notice is completely inadequate and fails to serve any useful purpose.³⁰ With but one or two exceptions companies do not advise their policyholders of their right to make independent nominations to the board.³¹ Often the policyholder must scan the financial journals to learn the final results of the election.³² In fact, in letters to the Temporary National Economic Committee many policyholders of mutual companies expressed astonishment that they were eligible to vote in the election of directors of their companies.³³

In the case of the two largest companies, evidence was presented indicating that agents instructed by the company to solicit policyholders' signatures to proxies on occasion signed the proxies themselves without the knowledge or consent of the policyholders.³⁴ Furthermore, it appeared that both of these companies used their investigative forces to inquire into the personal history of policyholders who requested more detailed information as to their rights to vote.³⁵

Opportunity for policyholders of mutual companies actually to take part in the management of their companies is even less than the foregoing would indicate. The absence of provision for cumulative voting,³⁶ the occasional use of perpetual or long-term proxies by which policyholders are asked to sign away their voting rights for a period of years,³⁷ the staggering of directors' terms,³⁸ the failure of companies to bring their management face to face with policyholders at annual meetings even to the small extent that takes place in most stockholders' meetings,³⁹ and the policyholders' lack of legal access to the books and records of their companies,⁴⁰ are all factors tending to disfranchise the policyholders and to entrench management in control.

The nomination and election of officers and directors of stock companies is somewhat different. As corporations they are legally con-

²⁶ *Ibid.*, Part 4, p. 1400.

²⁷ *Ibid.*, exhibit No. 255, p. 1552.

²⁸ No election has been contested in New York in 15 years except in the case of one small mutual assessment company in 1932. (*Ibid.*, pp. 1405-1406.)

²⁹ *Ibid.*, p. 1392.

³⁰ Of 80 mutual companies examined, 28 sent special notices announcing meetings for the election of directors by mail alone or by mail in combination with other methods, 11 gave notice only on the premium receipt, 19 gave notice only on the policy or policy jacket, and the remaining 22 companies used other methods, none of which involved the mailing of special notices. See *ibid.*, exhibit No. 256, p. 1400, for complete details on this analysis.

³¹ *Ibid.*, p. 1378 ff.

³² *Ibid.*, exhibit No. 256, p. 1400.

³³ *Ibid.*, p. 1403.

³⁴ *Ibid.*, pp. 1313 and 1371; Part 12, pp. 5924-5.

³⁵ *Ibid.*, Part 4, pp. 1307 to 1310; Part 12, p. 5923 and Exhibit No. 1010.

³⁶ Temporary National Economic Committee Monograph No. 28, p. 24.

³⁷ *Ibid.*, pp. 24-25, and Hearings before the Temporary National Economic Committee, Part 12, Exhibit No. 1073.

³⁸ Temporary National Economic Committee Monograph No. 28, p. 25.

³⁹ *Ibid.*, p. 23.

⁴⁰ *Ibid.*, pp. 23-24.

trolled by their stockholders. Special studies by the Securities and Exchange Commission indicate that officers and directors frequently own a majority interest, and in almost all other cases a substantial minority interest. Continuity of management suggests that such stock interest, coupled with control of the proxy machinery and (in many cases) the use of long-term proxies, connotes effective control.

Policyholders contribute the bulk of the companies' funds. The ratio of policyholders' liabilities to total assets in the seven largest stock companies ranged from 82 to 95 percent.⁴¹ Furthermore, six of these seven companies have participating policies outstanding. These policyholders had the right to share in the profits, but the determination of the amount of their share was left to the stockholders.

Thus both mutual and stock companies present the familiar phenomenon of owners who do not control.⁴² It is by no means a recent phenomenon and has been noted many times.⁴³ In 1927, Mr. James A. Beha, superintendent of insurance of the State of New York, described it as follows:

All of the directors of our mutual life insurance companies are men of affairs, men of good standing in their respective communities, and men of honor and ability. They serve on these boards as directors for a nominal fee. They are active in their own special work and undertakings and can give only limited consideration to the affairs of these life insurance companies.

While nominally elected by the policyholders, they are actually selected by the management of each of the companies themselves. Section 94, which provides for the election of directors, while intended to give policyholders a voice in the selection of directors, nevertheless sets up a plan which is not workable to accomplish its object; and, as already stated, the directors are, for all intents and purposes, selected by the management of the company. It is these directors so selected who in turn elect the officers of the companies and are expected to supervise their management.⁴⁴

In brief, as in so many other American industries, there are in the life insurance business numerous directors who do not direct,⁴⁵ self-perpetuating directorates safe from interference by policyholders, and the pyramiding of economic power in a handful of corporate giants centralizing their operational controls in the same city.

Interlocking Relationships.

Life insurance officers and directors have varied and far-flung financial and industrial connections. Data on the business affiliations of 135 directors on the boards of the five largest insurance companies—Metropolitan, Prudential, New York Life, Equitable, and Mutual Life—indicate that among these 135 directors may be found the directors of 100 other insurance companies, 145 banks or other financial institutions, and 534 industrial, real estate or miscellaneous corporations. Each director of these life companies was on the average a director of six other corporations.⁴⁶ The life insurance directors are predominantly directors of industrials and public utilities.⁴⁷ Further

⁴¹ Hearings before the Temporary National Economic Committee, Part 10-A, p. 101.

⁴² A characteristic phenomenon of large-scale enterprise. Cf. A. A. Berle and G. C. Means, *The Modern Corporation and Private Property*, Macmillan, New York, 1932.

⁴³ Hearings before the Temporary National Economic Committee, Part 4, pp. 1555-1557.

⁴⁴ *Ibid.*, p. 1557.

⁴⁵ See also W. O. Douglas, *Directors Who Do Not Direct*, Harvard Law Review, June 1934, p. 1305.

⁴⁶ See comment, Temporary Economic Committee Monograph 28-A on behalf of insurance companies, "Integrity—the Foundation of Life Insurance," pp. 6-7.

⁴⁷ See Temporary National Economic Committee Monograph No. 28, p. 29. Data were compiled from replies to a questionnaire by the Securities and Exchange Commission.

⁴⁸ Including United States Steel Corporation, Bethlehem Corporation, Great Atlantic & Pacific Tea Co. of America, American Telephone & Telegraph Co., Consolidated Edison Co. of New York, Atchison, Topeka & Santa Fe Railway Co., General Electric Co., and E. I. du Pont de Nemours and Co. (Data compiled from replies to a Securities and Exchange Commission questionnaire.)

details concerning the nature and extent of the existing interlocking connections of the five largest life insurance companies are shown in exhibit No. 1345, Part 13 of the committee hearings.⁴⁸

Most striking is the connection between insurance companies and banking institutions. The five largest companies, for example, are affiliated through common directors with 23 large commercial banks having total assets of over \$16,000,000,000. Thirteen of these banks are in the New York City area, among them the National City, Chase National, Guaranty Trust, Bankers Trust, First National, and Irving Trust. These have a total of 48 interlocking directors on the boards of the five insurance companies, or more than a third of the total membership of the five boards.

In the case of the Mutual Life Insurance Co. of New York over half of its directors are also officers or directors of large commercial banks in the New York area. Eight of the 13 banks have either their president or the chairman of their board on the boards of the big five life companies. The interlocking banking connections are further cemented by preferential bank deposits⁴⁹ and business dealings of various kinds.⁵⁰ Frequently the banker-director is a member or even chairman of the finance committee of the insurance company,⁵¹ the committee generally charged with the investment of company funds. In short, banks and insurance companies have often a considerable degree of identical management.

Cartels in the Life Insurance Business.

Life insurance companies concentrate, in a handful of individuals, power so absolute that they can, if they wish, bend their organizations to their own personal ends, even at the cost of policyholders and owners. But besides this concentration of economic power in individual companies there is the far more important problem of the power which they exert collectively. Here again the data are mere samples. However, a series of intercompany agreements were found, designed to eliminate competition or to organize a united front on legislation, etc. The hearings, confined entirely to intercompany agreements entered into among the larger eastern companies, established the existence of anticompetitive understandings affecting policy rates, underwriting practices, and various important policy provisions.

These intercompany agreements take many forms. In some instances policy rates are fixed directly. In others, merely a minimum scale is adopted, below which no company may quote rates without breaching the agreement. Sometimes these intercompany arrangements do not involve rate fixing, but rather set up rules requiring uniform underwriting practices, and policy provisions. These devices are analogous to the various price-fixing arrangements found in a large sector of industry.⁵² They also increase the emphasis upon nonprice competition service and other devices of high-pressure salesmanship which raise selling expense.

There are two noteworthy aspects of this procedure: (1) The absence of participation by regulatory officials, and a corresponding

⁴⁸ Interlocking connections have been partially responsible for the poor attendance records of certain life insurance directors who have sometimes failed to attend any meetings at all over a considerable period of years. (For a full discussion of this subject, see Temporary National Economic Committee Monograph No. 28, pp. 29 ff.)

⁴⁹ Temporary National Economic Committee Monograph No. 28, p. 46.

⁵⁰ Hearings before the Temporary National Economic Committee, Part 28, pp. 15186-15234.

⁵¹ Temporary National Economic Committee Monograph No. 28, p. 34.

⁵² See ch. III, *supra*, on Managed Industrial Prices.

attempt to maintain secrecy concerning the agreements. (2) The frequent abandonment of independent judgment by individual companies in order to secure unanimous action on majority decisions. In every instance these intercompany agreements have lessened competition among the companies and further solidified power in the hands of the larger companies which dominate the industry.⁵³

One of the more interesting examples of such anticompetitive agreements is the series arrived at through the "Hunter Conferences." For nearly 20 years actuaries representing the principal life insurance companies have met in the offices of the chief actuary of the New York Life Insurance Co. to discuss annuity rates, policy provisions, underwriting problems, dividends, and similar matters. The conferences take place from two to four times a year. Usually representatives of as many as 20 of the largest companies are present.⁵⁴

Notices of the meetings and agenda are sent to company representatives in advance. The proceedings are informal. The problems covered by the agenda are discussed intensively following which the participants either vote to commit their companies to a certain course of action, or indicate what recommendations they will make to their fellow executives.⁵⁵ Conferees are generally authorized to speak for their companies,⁵⁶ and quite often a formal vote by show of hands is taken.⁵⁷ Frequently companies agree to a particular recommendation provided that other companies follow suit.⁵⁸

Following a conference Dr. Hunter acts as a sort of "clearing house"; representatives not authorized to bind their companies at the conference may report back to him the final decision reached. Thereafter, follow-up letters keep every company informed of the action taken by the other companies. Successive meetings are sometimes necessary to crystallize opinion. Subcommittees have sometimes been chosen to explore a problem and report on the most likely basis for uniform agreement.⁵⁹ The five largest companies take the lead in these conferences, and frequently hold advance meetings to agree on a program for submission to the larger group.⁶⁰

No minutes are kept of the conference proceedings, and at the end of each year Dr. Hunter's files relating to any subject upon which discussion has been closed are destroyed.⁶¹ No publicity is given the deliberations and no public official is present or invited to attend. All communications relating to the activities of the conferences are confidential.

⁵³ See Temporary National Economic Committee Monograph No. 28, pp. 141-63. See also Temporary National Economic Committee Monograph No. 28-A, p. 7.

⁵⁴ Hearings before the Temporary National Economic Committee, Part 10, Life Insurance, pp. 4508, 4509, exhibits Nos. 754 and 799. On one occasion companies represented at the conference accounted for over 80 percent of the admitted assets of all United States companies. (Ibid., exhibit No. 754.)

⁵⁵ Ibid., pp. 4510, 4511, 4517, 4518.

⁵⁶ Ibid., p. 4522. After preliminary conferences, it was often urged that conferees have full authority to speak for their companies. For example, a memorandum entitled "Steps in Preparation for Inter-Company Conferences on June 3," prepared by Mr. Ray D. Murphy, vice president and actuary of the Equitable, states in part:

"Progress can only be made if individual companies are willing to waive small differences in viewpoint because of the much greater advantage which will accrue to all through the sound solution of these problems. At this stage it is most desirable that each representative come to the conference invested with authority to speak for his company as to its willingness to accept each of the above rules individually, provided that the great majority of the other companies are willing to do likewise." (Ibid., exhibit No. 785.)

⁵⁷ Ibid., p. 4517.

⁵⁸ Ibid., pp. 4520 and 4522.

⁵⁹ Ibid., pp. 4510, 4511, 4517, 4535, 4575, 4576, 4585.

⁶⁰ See, for example, ibid., exhibit No. 754, pp. 4828-4829.

⁶¹ Ibid., p. 4511. Dr. Hunter stated, "It never crossed my mind for a moment that anyone, including such a body as this, would be interested in notes made in connection with informal discussions" (idem).

One of the chief subjects considered in recent conferences was annuity rates.⁶² Companies had been experiencing heavy losses and were anxious to pull themselves out of their difficulties by raising rates.⁶³ No company appeared willing to take the initial step in this direction. An attempt was made, therefore, to arrive at a program for uniform rate increases. Over a 5-year period 4 annuity rate increases were agreed to and put into effect by from 18 to 23 principal companies.⁶⁴ In addition, many other phases of the annuity problem were discussed, in order to standardize practices and to limit the number of types of annuity contracts sold.⁶⁵ An important step was the establishment of a system of uniform commission rates for agents selling annuities.⁶⁶

In short, however justifiable some rate increase may have been (that point is not at issue here), the concentration of economic power in the life insurance business is so great that trial-and-error competitive rate increases were superseded by agreement on practically a national scale, without any public audit or even any public representative with the responsibility of protecting the public interest. Yet the public paid the bill. The life insurance industry created and enforced a national cartel agreement, thus establishing and wielding a Nation-wide concentration of private economic power, while the regulatory forces representing the public interest remained part of 48 separate State governments.

There are abundant demonstrations of the essentially national character of the life insurance business. For instance, for over 20 years companies writing group insurance have quoted uniform initial rates.⁶⁷ For several years the three leading companies writing non-participating insurance have agreed upon uniform rates, and also upon rate increases.⁶⁸ In the field of reinsurance, there is a so-called reinsurance conference, of which principal companies carrying reinsurance are members. This has fixed rates, eliminated rate cutting, and created uniform underwriting practices.⁶⁹ Furthermore, the leading American and Canadian companies are signatories to the Replacement Agreement, the objects of which are to discourage the switching of life insurance from one company to another, and to establish a system for reporting agents who attempt to do so for any cause.⁷⁰ In addition, a medical information bureau, composed of 250 member and associate member companies, has as its object the interchange of information bearing on the insurability of prospective policyholders.⁷¹ With a similar end in view, a committee on underwriting large risks, composed of actuaries and medical officers of the principal companies, has established uniform underwriting rules for policies over \$50,000.⁷² Also, some 62 United States and Canadian companies have signed an Agency Practice Agreement regarding the selection and training of agents.⁷³

⁶² Other subjects considered and agreed upon during the Hunter conferences were agreements establishing uniform surrender values and fixing settlement option rules (*ibid.*, pp. 4569-4663).

⁶³ *Ibid.*, exhibits Nos. 752, 753.

⁶⁴ *Ibid.*, pp. 4517, 4531, 4534-4537, 4540, 4544.

⁶⁵ *Ibid.*, pp. 4510, 4533, 4534-4537, 4540, 4544.

⁶⁶ *Ibid.*, exhibits Nos. 762, 763, 764.

⁶⁷ *Ibid.*, pp. 4154-4424.

⁶⁸ *Ibid.*, pp. 4224-4281.

⁶⁹ *Ibid.*, pp. 4668-4684.

⁷⁰ *Ibid.*, pp. 4648-4668.

⁷¹ *Ibid.*, pp. 4633-4642.

⁷² *Ibid.*, pp. 4642-4648.

⁷³ *Ibid.*, Part 13, exhibits Nos. 1237, 1338.

Besides these understandings governing various technical features of the insurance business, numerous trade associations serve as the vehicle for united action.⁷⁴ Most important of these is the Association of Life Insurance Presidents, which operates a Nation-wide lobby actively combatting "adverse" legislation.⁷⁵ Whether or not any or all of the agreements or organizations are in the public interest is a question for extended treatment exceeding the scope of this analysis. The only point made here is that these are national cartel arrangements representing Nation-wide concentration of economic power.

INSURANCE AND THE SAVINGS-INVESTMENT DILEMMA

As has already been shown,⁷⁶ the savings-investment problem is one of the most important and complicated economic problems of the present day. Whether concentration of economic power in the life insurance industry tends to aggravate the difficulties of that problem is therefore of great significance. What does life insurance do to the process of saving? Who are the buyers of life insurance? Who receive the benefits? What happens to the funds thus amassed? Are large investments favored over small? Are investment opportunities in the large cities or near New York City more likely to be seized than those farther away? Are certain types of industries favored over others? How do life insurance companies affect the supply of venture capital or the oversupply of investment funds? Is the concentration of investment decisions in few hands partly responsible for the gravity of the problem of idle money, idle machines, and idle men? These are only a few of the important questions that might be raised, of which only three can be dealt with at this time. (1) Does life insurance make the saving process automatic? (2) What types of investment do insurance executives regard as sound? (3) What has been the effect on the direction and level of general business?

Has Life Insurance Made the Savings Process Automatic?

In the economic textbooks, life insurance premiums are said to be a "costless supply of funds," that is, savings made without regard to the rate of interest, savings induced primarily by desire to protect loved ones against contingencies, rather than by a thrifty weighing of the additional economic reward in the future against present satisfactions. If true, it would help to explain why savings continue to overflow the vaults of the banks even in times of depression and low interest rates. It would help to explain why lowering the interest rate fails to deflect more of the national income into expenditures on consumption goods. In short, it would throw light on reasons why the problem of idle money remains unsolved.

The question, therefore, is vital and, without belaboring the point, the evidence indicates that life insurance companies have introduced an important element of automaticity into the savings process. The cre-

⁷⁴ Temporary National Economic Committee Monograph No. 28, p. 164.

⁷⁵ *Ibid.*, Part 10, pp. 4345-4449. See Temporary National Economic Committee Monograph No. 26, Economic Power and Political Pressures, for extensive treatment. The association represents 85 percent of the legal reserve life insurance business in the United States. In the period from 1935 to 1938 it disbursed \$559,751 for legislative activity. The staff of the association analyzes about 10,000 bills a year, and where a particular bill is deemed adverse to the life insurance interests or otherwise objectionable, efforts are made through local representatives to quash the proposal "in committee" or prevent its passage on the floor. Agents of member companies are frequently used to create sentiment and to communicate with legislators. The association's organization is well integrated and effective. Its methods are often clandestine and devious.

⁷⁶ Chs. IX and X.

ation of a high-powered and extensive agency staff has built up a group of specialists that stimulate the demand for life insurance. So far as each individual is concerned, stimulation of savings habits and of thrift is highly desirable. But the life insurance companies continue to stimulate savings although they find it more and more difficult to invest these savings. Life insurance is in effect purchased on the installment plan; that is, any year's payment on an existing life insurance policy represents a relatively small part of the total investment in (cost of) life insurance. Hence, the demand for life insurance, as measured by, say, the seventh annual payment on a policy, is very inelastic. The ceaseless flow of most of the savings to a few life insurance companies, therefore, creates an investment problem. Since the companies testify that they find it difficult, if not impossible, to invest all these funds, concentration encourages and stimulates hoarding. From this point of view, the flow of savings to life insurance companies has deflationary effects on national income and restrictive effects on total employment.

Unfortunately there is no adequate information on the distribution of insurance policies by income level, nor by size of policy. Nevertheless, it is clear that the ownership of policies as well as the benefits received from life insurance are unevenly distributed among the 64,000,000 policyholders.

Holders of industrial insurance are very numerous, but they hold less than a fourth as much insurance as the much smaller group carrying ordinary insurance. At the end of 1938, of the 124,000,000 policies outstanding, approximately 88,000,000 were industrial policies, held by some 50,000,000 people. These policies represented \$21,000,000,000 of insurance in force. Ordinary policies, including group policies, on the other hand, numbered 36,000,000, and had a face value of \$90,000,000,000.⁷⁷ How many of these were covered only by group policies is unknown, but even allowing for such duplications, over 80 percent of the total insurance in force is held in units of \$1,000 and over, by a relatively small proportion of the policyholders. On the other hand, industrial policyholders, who constitute the large majority of the number of individuals insured, own less than 20 percent of the total insurance.

Most of the ordinary insurance taken out is bought by persons in the upper-income brackets, according to a sample study of persons who held insurance in various companies in amounts aggregating at least \$5,000.⁷⁸ (Those holding over \$40,000 were excluded.) Of these individuals, 8.3 percent had incomes below \$1,500, though they constituted more than two-thirds of the income recipients in the economy. They carried only 5.8 percent of the total insurance. On the other hand, persons with incomes over \$10,000, or 1 percent of the total number of income recipients, constituted 11.2 percent of the persons in the sample, and carried 17.4 percent of the insurance.

The bulk of life-insurance policies in force, ordinary and industrial, is issued by mutual companies, which return to the policyholder the difference between the premium paid in and the amount necessary to meet the requirements of the business. Policyholders who meet premiums regularly, therefore, in addition to receiving their insurance

⁷⁷ There is no estimate available of the number holding ordinary policies. See Statistical Abstract of the United States, 1939, p. 293, and Temporary National Economic Committee Monograph No. 28, p. 248.

⁷⁸ See ch. VIII.

when due, presumably receive in the form of dividends any excess premiums paid in. Those who cannot continue premium payments and are forced to lapse or surrender their policies may lose all or part of the premiums accumulated with the company.

During the 10-year period, 1928-37, \$126,675,000,000 in insurance was terminated. Of this amount, only 21.6 percent represented terminations which came about through accomplishment of the purposes of insurance, while 78.4 percent represented terminations by lapse or surrender. In industrial policies alone the terminations due to lapse or surrender are even greater. Of the 187,761,000 policies terminated from 1928 to 1937, only 4.5 percent were terminated by death and less than 1 percent by maturity. On the other hand, 20.5 percent were terminated by surrender and 70.7 percent by lapsing.⁷⁹ Recent experience has led even Metropolitan, the largest company selling industrial insurance, to expect 20 percent of the policies issued to lapse before premiums have been paid for 26 weeks.⁸⁰ Lapses and surrenders for the three largest mutual companies selling industrial insurance totaled \$46,280,000 in 1938. Of this amount 79 percent was attributable to the industrial insurance departments of those companies.⁸¹

Thus those whose families reap the benefits of insurance, so far as amount of insurance is concerned, are primarily those who already have a relatively high income, steady enough so that they can see their policy through to the finish, and whose beneficiaries are least likely to spend the life-insurance proceeds for consumption goods, and most likely to try to invest them. Therefore, so far as savings are amassed through the medium of insurance, they are in large part amassed by the upper income groups, who are already making disproportionate contributions to the pile of idle money. Those in the lower income brackets try but fail to put much aside for their loved ones who would spend it on consumption goods. The economic effect is doubly adverse.

What Investments are Sound.

Among savings institutions the insurance companies enjoy a commanding position. To New York are drawn funds from all quarters of the country, there to be amassed and managed in large aggregates. In the last 10 years the principal companies have had over \$26,000,000,000 to invest. In 1938, in addition to purchasing large blocks of Government bonds and investing over \$651,000,000 in farm and urban mortgages,⁸² these companies purchased 47.7 percent of all corporate bonds and notes issued.⁸³ In that year the 26 major companies invested about \$4,000,000,000,⁸⁴ more than \$10,000,000 a day. What the executives of these companies regard as sound investment is, therefore, of vital importance.

The first prerequisite is safety, which the insurance companies and government bodies have always been careful not to impair in any way.

⁷⁹ Temporary National Economic Committee Monograph No. 28, pp. 278-279.

⁸⁰ Hearings before the Temporary National Economic Committee, Part 12, p. 5963. For a discussion of industrial insurance from the point of view of some insurance companies, see Temporary National Economic Committee Monograph No. 28-A, pp. 12-18.

⁸¹ *Ibid.*, p. 5610. It should be noted, however, that these are accounting figures, which cannot be taken at their face value.

⁸² Hearings before the Temporary National Economic Committee, Part 10-A, pp. 162, 192. Figures include purchase money mortgages. See Temporary National Economic Committee Monograph No. 28-A for comments on behalf of certain life insurance companies on the problems of investment, particularly "Experimentation with Common Stocks," pp. 3-5. See also address of Dwight C. Rose on equity investments, *ibid.*, pp. 32-54.

⁸³ *Ibid.*, p. 125. Many of the new corporate issues were not eligible investments for life insurance companies, which makes the significance of this percentage even more apparent.

⁸⁴ *Ibid.*, Part 28, p. 14698.

Associate Justice William O. Douglas, then chairman of the Securities and Exchange Commission, remarked at the opening of the insurance hearings, "no policyholder need have any concern that any facts brought out in this inquiry will in any way jeopardize the protection which he counts upon through his insurance policy."⁸⁵ This statement was reiterated by other committee members. The exhaustive studies of the investments of the larger life insurance companies confirm the fact that the principal companies studied have on the whole invested their funds in the safest bonds and mortgages which money can buy.⁸⁶

Legal Requirements.

The investment policies of the major savings institutions are circumscribed by law. These legal requirements vary from State to State and from one type of savings institution to another. Since the assets of the major savings institutions are to a substantial extent concentrated in New York, and since many of the other States follow New York, no significant departure from fact will be made if the discussion is based upon New York requirements alone.⁸⁷

The investments of savings banks and trustees in New York are largely governed by the "legal list," which was described by William R. White, Superintendent of Banks of the State of New York, as follows:

The legal list is a document published annually by the New York State Banking Department. It lists the securities which, in the opinion of the superintendent of banks, comply with the standards prescribed in section 235 of the banking law and which are therefore, in his opinion, legal for investment for savings banks and for trustees. The fact that securities are excluded from the list is not to be taken as definitely meaning that those securities are not legal. However, the fact that securities are included in the list affords some protection to savings banks and trustees investing in those securities and, in fact, investment in other securities is barred by savings banks and by trustees unless the instrument creating the trust authorizes investment beyond the list.⁸⁸

White further testified that the great majority of States have legal lists similar to New York's, and that some States incorporate by reference the New York legal list without setting up one of their own.⁸⁹

Apart from obligations of the United States, all of which are eligible for investment, the legal list in 1931, the last year in which it reflected the predepression situation, consisted of—

Obligations of States-----	\$2, 301, 000, 000
Obligations of municipalities-----	8, 773, 000, 000
Obligations of railroads-----	7, 602, 000, 000
Obligations of utilities-----	2, 166, 000, 000
Total-----	20, 842, 000, 000

Except for the railroads, the situation has not changed materially since 1931. By 1939 less than \$1,000,000,000 of railroad securities could have met the 1931 standards, though 2.5 billion dollars remained on the list because the statutory requirements had been relaxed.⁹⁰

White was of the opinion that the legal list was unduly restrictive in some respects. He suggested that the securities of other indus-

⁸⁵ *Ibid.*, Part 4, p. 1162.

⁸⁶ *Ibid.*, Part 28, p. 14696.

⁸⁷ *Ibid.*, Part 9, p. 3803. It has been estimated that at least 25 States follow the New York regulations.

⁸⁸ *Ibid.*, p. 3793.

⁸⁹ *Ibid.*, p. 3794.

⁹⁰ *Ibid.*, pp. 3794-3795.

tries—specifically foods, oils, tobaccos, and steel—might be made available for investment.⁹¹ He thought, too, that there were “undoubtedly a substantial number of corporations which fail to meet the technical requirements of the banking law, but whose securities might properly be considered as investments for savings banks or for trustees.”⁹²

He pointed out that the securities which had been on the legal list but had been removed would need a further period of reasoning before they again became eligible. If a railroad or a public utility defaulted on its securities and was then reorganized, the new securities would not be placed upon the legal list, regardless of the future prospects of the company, until at least 6 years had elapsed.⁹³ The investigation of protective and reorganization committees by the Securities and Exchange Commission indicated that municipalities frequently went to great lengths to disguise or cure defaults. They recognized that one default might deprive them of their institutional market for many years.⁹⁴

In the face of this contraction, the only move to liberalize the scope of the legal list was an amendment to the banking law in 1938 authorizing the State banking board, upon application of a group of savings banks, to add corporate interest-bearing obligations not otherwise eligible for investment to the legal list. These additions to the list have not been substantial, consisting of debentures totaling only \$577,000,000.⁹⁵

The New York regulations governing the investments of life insurance companies are somewhat broader than those for savings banks and trustees. A summary of the provisions governing life insurance company investments in 11 States, including the principal States in which the 26 largest companies operate may be more helpful than a detailed description.

Some of the States are more liberal than others, but in general the legal restrictions are somewhat similar. Generally speaking Government obligations of the United States and its various political subdivisions are eligible for investment and loan purposes, as are the obligations of the Dominion of Canada and its Provinces. Many of the States permit investments in obligations of political subdivisions in Canada, while a few authorize direct investment in Canadian industrials.

Corporate obligations of some companies are legal investments in all States under a wide range of restrictions, limitations and earnings requirements. Two of the States reviewed, that is, Wisconsin and Iowa, permit the acquisition of corporate shares of any description, while two, New York and Ohio, specifically prohibit investment in common stocks. The other seven States permit investments in common stocks under various limitations.

Loans on mortgages secured by real estate in the United States are generally permitted while some States permit loans on mortgages secured by real estate in Canada.

Mortgage loans in all cases examined are restricted to first liens and may be made up to various percentages of the appraised value of the real estate at the date the loan is made.

⁹¹ *Ibid.*, p. 3796.

⁹² *Ibid.*, p. 3795.

⁹³ *Idem.*

⁹⁴ Cf. Report on Protective and Reorganization Committees, Part IV, Committees for the Holders of Municipal and Quasi-Municipal Obligations (1936), pp. 9-12. L. Arnold Frye testified that in the event of default, “The market for its bonds is very much limited, and in consequence their value is diminished, because most of the institutions—and they are the largest buyers—whether or not they are required under the statute relating to fiduciaries and trustees, and so forth, do in fact usually govern their purchases by the provisions of those acts, and do not buy the bonds which are not on the legal list” (*ibid.*, p. 10).

⁹⁵ Hearings before the Temporary National Economic Committee, Part 9, p. 3799. These debentures were issued by the following companies: American Telephone & Telegraph Co., Liggett & Myers Tobacco Co., Mountain States Telephone & Telegraph Co., Socony Vacuum Oil Co., and Southern Bell Telephone & Telegraph Co.

This percentage is 66½ percent in all of the 11 States examined except Massachusetts and Iowa, which permit 60 percent, and Wisconsin, which permits loans only to the extent of 50 percent. In New Jersey, while the general provision is 66½ percent, under certain circumstances mortgages up to 75 percent of the appraisal value may be made. All States permit policy loans. In every instance, investment in real estate is definitely restricted to the business needs of the company although real property acquired as the result of foreclosure or in satisfaction of debts previously contracted may be held for a limited period.⁹⁶

The Supply of Securities.

The supply of securities available for investment since 1929 has not kept pace with the flow of savings to savings institutions. While this annual flow, particularly to life insurance companies, has continued at high levels, the amount of all securities, except Federal, outstanding and available for purchase has decreased. Default and deficits have removed \$5,000,000,000 of railroad securities from the legal list since 1931. An excess of retirements over new issues of public utility securities decreased the outstanding supply by \$739,000,000 from 1933 through 1939. Federal securities alone showed an increase during the period, as indicated in table 60.

In view of the restricted supply of eligible securities, the growth of life insurance holdings of cash and Federal securities, the reactions of life insurance executives to desirability of broadening the legal limits of investment are particularly pertinent.

TABLE 60.—*Net change in the outstanding amount of the principal classes of securities, 1933-39*

[Excess of deficit (—) of new issues over retirements]

[Millions of dollars]

Year	Federal	State and local	Domestic corporate		Foreign	Total
			All	Public utilities		
1933	2,010	—350	—350	—109	10	1,320
1934	4,690	—460	—90	—17	—210	3,930
1935	1,450	40	20	134	—90	1,420
1936	4,340	—20	820	212	—190	4,950
1937	3,200	—90	—490	—628	—230	2,390
1938	3,174	269	242	—34	—30	3,655
1939	3,111	179	—313	—297	—26	2,951
Total 1933-39	21,975	—432	—161	—739	—766	20,616

Source: Securities and Exchange Commission, *Selected Statistics on Securities and on Exchange Markets* (1939), pp. A-1 to A-3. Data for 1938 and 1939 have not yet been published.

The witnesses all felt that the existing regulations should be maintained. The president of the New York Life testified that the present restrictions seem satisfactory, and that his company would like to be able to invest more in the fields where they already were rather than to extend their investments to other fields. He added that his company had no desire to invest in common stocks.⁹⁷ A vice-president of the Prudential gave the following opinion:

Mr. GESELL. You would feel then that the present investment laws under which you operate, namely, the laws of New Jersey, are sufficiently liberal for

⁹⁶ Ibid., Part 28, pp. 14800-14801.

⁹⁷ Hearings before the Temporary National Economic Committee, Part 28, p. 14753.

your purposes, and even if they were removed you would probably be still investing in the same field in which you are now investing.

Mr. STEDMAN. I think that is correct.⁹⁸

A vice-president of the Mutual Life stated: "I think that our law is liberal enough for us to purchase any sound, high-grade industrial bonds we would consider suitable for our investment purposes." He added that he thought great care should be exercised in liberalizing laws and lowering standards because, as he explained, "It is not that I have fear in strong companies. It is the weak companies that would take advantage of that liberality."⁹⁹

Specific Investment Policies and Practices.

Within the limitations imposed by legal lists and other legal requirements, the managements of financial institutions have wide latitude. The investment policy actually followed depends upon the membership and outlook of the management group, and the type of investment standards which the group accepts as "sound."

It is impossible in this section to discuss in detail the composition and shifts of life insurance company assets. It is sufficient to note that from 1929 to 1938 the composition of the assets of the 26 largest legal reserve life insurance companies domiciled in the United States changed markedly.¹ Cash and bank deposits, Government bonds, and policy loans became relatively more important assets; farm and urban mortgages and industrial securities became relatively less important. There was some increase in holdings of urban and farm real estate which, though substantial in aggregate, were not of great relative importance in terms of total assets.

Cash.—The cash holdings of the 26 largest legal reserve life insurance companies increased from \$102,000,000 to \$665,000,000 from 1929 to 1938. The Metropolitan alone held more cash in 1938 than all 26 companies held in 1929.²

These cash and deposit balances earned negligible amounts of interest. In 1929 all 26 companies earned \$3,700,000 upon their cash balances; in 1938, \$273,000. In 1929 all of the 26 companies reported interest income on cash balances; in 1938, 7 companies earned nothing, and another 7 earned less than \$1,000. The New York Life, for example, reported \$43 of interest income during 1938 on cash balances aggregating \$50,000,000. The Prudential reported no interest income during the year on \$95,000,000 of cash.³

All the executives questioned agreed that their cash holdings were greatly in excess of normal requirements. They explained that they held excess cash because they were unable to find investment outlets.⁴

⁹⁸ Ibid., pp. 15278-15279.

⁹⁹ Ibid., p. 15306. This opinion is interesting in the light of testimony by Alfred Best, editor of some of the best known insurance statistical publications. He discussed the 19 life insurance company failures in 1930-38. In his opinion the general cause of these failures was the holding of too much home office real estate, but that in one case it was the holding of too much stock in other life insurance companies, and in another it was an investment in a speculative real estate scheme in the Texas grapefruit area (ibid., pp. 15390-15414).

¹ For a list of these companies, to which the discussion in this section is confined, see ibid., Part 10-A, pp. iii, iv.

² Ibid., pp. 98-100.

³ Ibid., pp. 106-107. The Pacific Mutual was the only company to earn a noticeable return on its cash holdings. It had \$3,400,000 of its total cash holdings of \$3,900,000 at interest in California banks in 1938, and earned \$39,944 interest, or more than all the other companies except two (ibid., Part 28, p. 14824).

⁴ Ibid., pp. 14759, 15243-15244, 15295-15296.

There was no evidence that their inability to find investments, even in low-yield short-term Governments, was the result of any concerted investment policy. However, the companies, apart from their cash, are probably more liquid than ever before by reason of their large holdings of Governments. It would be to the advantage of any one company to invest its surplus cash. If other companies followed suit, the competition would undoubtedly have a marked effect upon both long- and short-term interest rates.

Government bonds.—Life insurance companies, together with other savings institutions, have invested heavily in United States Government bonds since the depression. Federal bonds constituted 2 percent of the assets of the 49 largest companies in 1929 and 17.9 percent in 1938.⁵ The rate of interest on these bonds has fallen sharply. In 1929 the computed interest rate on all outstanding interest-bearing debt was 3.9 percent; in 1939 it was 2.6 percent.⁶ If the experience of 1 company discussed during the hearings is any guide, the life insurance companies have made relatively heavy investments in the shorter term maturities, for it was stated that this company in 1937 earned only 1.9 percent on its Government.⁷

The witnesses generally agreed that the insurance companies invested in Governments because they could not find any higher yield securities elsewhere, since the decline in the yield on Government securities was symptomatic of the decline in the yield of all classes of securities.⁸ However, although income taxes have increased the relative advantages of tax-exempt securities, declining interest rates have been accompanied by a narrowing in the spread between interest rates on Governments and those on the highest grade private securities.⁹

Corporate bonds and notes.—Life insurance companies confine their investments in corporate bonds and notes to the issues of large corporations. The president of New York Life, for example, testified that the minimum investment by his company was \$100,000.¹⁰ The Prudential has a similar policy. Stedman described the efforts of his company to make "small industrial loans," explaining that even in this class "we didn't want to go much below one hundred thousand, possibly fifty." In this range, certainly not the range of small business, the Prudential found that it could make only two loans in 18 months through the efforts of one full-time man.¹¹

Policy loans.—Policy loans are the highest-yield investments of life insurance companies. In 1932, when policy loans constituted 17.5 percent of total assets, they were responsible for 22.8 percent of total investment income. In 1938, when they constituted 11.6 percent of total assets, they were responsible for 18.7 percent of total investment income. The 26 companies averaged a return of 5.79 percent upon

⁵ Ibid., Part 4, p. 1518.

⁶ Annual Report of the Secretary of the Treasury, 1939, p. 41.

⁷ Hearings before the Temporary National Economic Committee, Part 4, p. 1225.

⁸ Ibid., Part 28, pp. 15260, 15295, 15318.

⁹ In 1925 the spread between Moody's Aaa corporate bonds and long-term U. S. Government bonds was 1.02 percent; in 1929, 1.13 percent; in 1933, 1.18 percent; in 1938, 0.63 percent (yield on Government bonds, from Annual Report of the Secretary of the Treasury, 1939, p. 486). In 1939, when so many bonds were selling above their call prices and were therefore relatively insensitive to interest-rate charges, the Treasury modified its own indexes (Treasury Department Bulletin, July 1939, p. 20). The spread shown by the new indexes was: January 1937, 0.62 percent; January 1938, 0.52 percent; January 1939, 0.49 percent; January 1940, 0.51 percent (ibid., April 1940, p. 27).

¹⁰ Hearings before the TNEC, Part 28, p. 14754.

¹¹ Ibid., p. 15270.

their policy loans in 1938, in comparison with 4.95 percent upon stocks, 4.74 percent upon mortgages, and 3.47 percent upon bonds.¹²

The high interest rates charged on policy loans are not based upon compensation for risk. There is no risk in this type of investment. Policy loans are the life insurance companies' safest form of investment—safer even than Government bonds:

Mr. LUBIN. And is there any other type of investment an insurance company could make that would be as sound as such a loan?

Mr. HOWE. There is no possibility of loss involved in a transaction of that sort so long as the thing is accurately handled mechanically. * * *

Mr. LUBIN. So, in reality, the return is largest on the safest investment you can make?

Mr. HOWE. That is right.¹³

The interest rate on policy loans is set forth in the policy contract. The contract rate was 6 percent until 1937, when a few of the major companies reduced it to 5 percent on new policies. A year later some of them extended the 5 percent rate to old policyholders. Even after this reduction the decline in the interest rate on policy loans was much less than that on any other type of investment.

Life insurance company executives offered no clear explanation of this differential. Consideration of safety would have moved the differential in the other direction, in favor of policy loans; and the expense of making such loans was not great.¹⁴ No witness pointed out that it might be necessary to keep the rates high merely to discourage borrowing, though Buckner indicated that policy loans were frequently followed by surrender of the policy.¹⁵ No evidence was introduced regarding intercompany agreements on a uniform interest rate, though a large amount of testimony indicated intercompany agreements with respect to rates, surrender charges, and other important aspects of the business.¹⁶

It may be asked why policyholders, in view of these differentials, did not borrow from commercial banks, using their policies as collateral. (They did this in borrowing from insurance companies. The answers are revealing.

(1) Though such loans presented practically no risk, they were not the traditional commercial loan banks cared to make.

(2) Though interest rates fell during the 1930's, they fell very unevenly. The rates on term loans to the larger corporations fell drastically; the rates on the better type of mortgage loans fell appreciably largely because of the competition of Government lending agencies. The rates on personal loans, however, fell least. For several years, therefore, there was no great advantage in borrowing money from a commercial bank as compared with a life insurance company. During the last 3 or 4 years the further decline in interest rates and the increasing pressure of excess reserves have increased the willingness of commercial banks to make policy loans. For the first time one now sees advertisements of commercial banks offering to make loans on life insurance policies at 4 percent.¹⁷

There was apparently one other factor in the situation, illustrated by a \$50,000-a-year advertising executive's attempt to borrow \$20,000

¹² Ibid., Part 10-A, pp. 8-10, 98.

¹³ Ibid., Part 28, pp. 14807-14808.

¹⁴ The cost, as nearly as could be ascertained, was said to be one-half of 1 percent (Ibid., exhibit 2302, pp. 15524-15525). There are, of course, costs involved in making other investments.

¹⁵ Ibid., p. 14737.

¹⁶ Generally discussed in *ibid.*, Part 10.

¹⁷ Cf. *ibid.*, Part 28, pp. 14814-14815.

upon a policy which had a cash surrender value of more than this amount. A Metropolitan agent acted on behalf of the assured in attempting to obtain the loan from the Bank of Manhattan. The bank wrote the Metropolitan that—

As you know, we find it difficult to obtain good loans today, but nevertheless do not feel that we should take policy loans away from the insurance company where the business rightfully belongs.¹⁸

The Bank of Manhattan did not make the loan, and the agent was reproved by the Metropolitan.

This company has very close relations with many of the large banks in New York City and elsewhere. Some of these banks, for reasons of their own, do not look with favor upon life insurance policies as collateral, and some of them out of regard for the life insurance business decline at least to solicit this type of business.¹⁹

The assistant treasurer of the Metropolitan stated:

It has been communicated to me by my superior officers, and *time and time again I have told inquiring bankers* that we certainly had no objections whatsoever to their making loans on life insurance if they thought that was good business.²⁰

The hesitation of this commercial bank to "take policy loans away from the insurance company where the business rightfully belongs" is an interesting example of lack of competition.

Urban and farm mortgages.—At the end of 1938 the 26 major companies held 3.9 billion dollars of urban mortgages, of which one-third was on New York property. On the average, 60 percent of all urban mortgages were concentrated in 10 metropolitan areas²¹ with 32 percent of the total in New York City and 8 percent in Chicago.²²

Some of the New York City companies show a high degree of concentration in that area. Almost half of Metropolitan's urban mortgages are on property there, for which Mr. F. W. Ecker gave several reasons:

In the first place, I think you will find with almost all corporations, that they ordinarily have a very sizable percentage of their loans in the immediate area. It may run from 40 to 50 percent, some place in there. Now the reason is obvious, that if it is a good area to lend in and there is a demand for money there, because it is the most readily supervised, your best people, that is your people at the top of the organization, are more familiar with values close by than elsewhere.²³

In contrast is the position of New England Mutual, with only 9 percent of its urban mortgages on property in the home office city, and the largest metropolitan concentration (almost 25 percent of the total) in Chicago.²⁴

The Mutual showed the highest degree of concentration, with 89 percent of all its urban loans on New York City property. A member of the company's real estate department stated:

Mr. McLAUGHLIN. * * * From the beginning the Mutual has favored New York City loans, and they have proven to be very successful. Now, we have not made residential or farm loans since the latter nineties, and the reason for that is because of the losses we sustained in farm loans and residences that were made in the eighties and the latter seventies.

Mr. GESELL. You have made no residential or farm loans since before 1900?

¹⁸ Ibid., p. 15232.

¹⁹ Idem.

²⁰ Ibid., pp. 15232-15233. (Italics supplied.)

²¹ New York, Chicago, Philadelphia, Los Angeles, Detroit, Washington, Cleveland, San Francisco, Boston, and Buffalo.

²² Hearings before the Temporary National Economic Committee, Part 10-A, pp. 201-206.

²³ Ibid., Part 28, p. 15141.

²⁴ Ibid., pp. 15078-15088 and Part 10-A, p. 201.

Mr. McLAUGHLIN. Yes; that is right—no, that isn't correct. We have made residential loans; no farm loans.

Mr. GESELL. Residential loans have been rather slight, have they not?

Mr. McLAUGHLIN. In comparison with the whole, very light, yes.²⁵

The Mutual's concentration in the New York City area is so great and so long-continued that it has no organization to make urban loans in other areas.²⁶

Some of the largest companies indicated a general preference for large loans rather than small ones. This was the case with Metropolitan,²⁷ New York Life,²⁸ and Mutual, although the latter's post-depression experience has indicated that it is difficult to dispose of the large properties which are foreclosed.²⁹ The Metropolitan's experience with its \$27,500,000 mortgage on the Empire State Building points in the same direction. The contract rate was 6 percent during construction of the building and 5 percent after 1940. The Metropolitan has negotiated a settlement, by which it has been receiving only 2½ percent a year, and it explained that it could not foreclose because the property did not earn even that much.³⁰ This single investment contrasts rather interestingly with the fact that the total urban mortgage investments of 13 companies in the sample of the 26 largest in 1938 were less than \$27,500,000.

Farm mortgages show a lesser concentration than urban mortgages, though 55 percent of the total are in Iowa, Illinois, Kansas, and Nebraska, with 25 percent in Iowa alone.³¹ Less than 10 percent of farm mortgages were for amounts greater than \$25,000.³²

The Prudential owned more farm mortgages than any other company; it showed both the widest geographical and size distribution. The company gave three reasons for this investment policy: Its good experience with farm mortgages; its desire to invest premiums where they are collected; and the findings of the Armstrong investigation in 1906 that urban concentration was unwise and that diversification was preferable.³³ But many companies do not take this view of investment possibilities. The Mutual has made no farm loans for 40 years,³⁴ has made no survey of investment prospects in the field for at least 10 years,³⁵ and has no staff to make such loans even if it wanted to.³⁶ The New York Life for a long time has had an extremely small investment in farm mortgages, and it explained that it would have to reorganize its staff if it wanted to make any.³⁷ The New England Mutual explained that the need for an enlarged organization was one element deterring them from farm mortgages.³⁸

One explanation given many times during the hearings was that life insurance companies did not make farm mortgage loans in any area unless the available number and amount of such loans was large. Rogers of Metropolitan explained: "In order for an insurance company * * * to lend money at present day rates of interest, we must be able to obtain a volume of loans of considerable size within a

²⁵ Ibid., p. 15053.

²⁶ Idem.

²⁷ Ibid., p. 15146.

²⁸ Ibid., p. 14751.

²⁹ Ibid., p. 15068.

³⁰ Ibid., pp. 15170-15178.

³¹ Ibid., p. 14826 and exhibit 2275, p. 15502.

³² Ibid., Part 10-A, p. 172.

³³ Ibid., Part 28, p. 15038.

³⁴ Ibid., p. 15055.

³⁵ Ibid., p. 15066.

³⁶ Ibid., p. 15053.

³⁷ Ibid., p. 14756.

³⁸ Ibid., p. 15081.

relatively small area." And he added that "to build a branch office to service loans and to make loans, I believe, that \$5,000,000 would be the minimum."³⁹ Hence, he explained that the Metropolitan made no loans in Oregon and Utah because the volume of business was insufficient; that it made no loans in Texas, even though Texas "has excellent land," because it feels that it could not build a \$5,000,000 volume there; and that it made no loans in California because "California is a long way from New York, for one thing."⁴⁰

Life insurance funds are not venture capital; they are seeking safe, long-term investments, preferably the bonds of well-established enterprises or governments. Thus at the end of 1937 the 49 largest life insurance companies held 12.4 percent of the total long-term debt in the United States, 10.5 percent of farm mortgages, 13.0 percent of all urban mortgages, 11.6 percent of Federal Government bonds, 11.7 percent of all industrial bonds, 17.4 percent of railroad debt, and 18.2 percent of all public utility bonds.⁴¹ With such heavy investments in railroads and utilities, the managers of life insurance companies have sought to safeguard these funds not only by interlocking directorships but have exercised considerable influence on management policies, particularly in times of reorganization. Then they play a dominant role on protective committees.⁴² This has appeared repeatedly in the records of railroad reorganizations,⁴³ and in Securities and Exchange Commission studies of the role of protective committees.⁴⁴

In recent years, partly as a result of foreclosures, life insurance companies have become enterprisers despite themselves. For example, they have been compelled to take over a good deal of farm and urban real estate.⁴⁵ They are now large owners of farm properties. The Metropolitan Life Insurance Co., for example, operates more than 7,000 separate farms, representing an investment of close to \$80,000,000 in 25 States. It employs over 350 farm managers, appraisers, and agricultural experts, and carries out extensive undertakings for the rehabilitation of farm property, repairing barns and homes, building fences, etc. In 1937 alone it harvested 50,000 bales of cotton, 10,000,000 bushels of corn, 5,000,000 bushels of wheat, 6,000,000 pounds of peanuts, and 1,000,000 pounds of tobacco.⁴⁶

So far as urban real estate is concerned, in addition to managing thousands of one- to four-family houses, apartments, hotels, stores, office buildings, theaters, banking houses, schools, and varied types of business properties,⁴⁷ some of the larger companies are putting hundreds of millions of dollars into large-scale housing projects.⁴⁸

³⁹ *Ibid.*, p. 14955.

⁴⁰ *Idem.*

⁴¹ *Ibid.*, exhibit No. 2259, p. 15493.

⁴² *Ibid.*, exhibit No. 15573.

⁴³ Hearings before the Senate Committee on Interstate Commerce, Investigation of railroads, holding companies, affiliated companies, pursuant to S. Res. 71, 74th Cong., 2d sess.

⁴⁴ Securities and Exchange Commission report on the study and investigation of the work activities, personnel, and functions of protective and reorganization committees, Washington, 1936-40. Particularly in instances of default of municipal securities, life insurance companies seem to have played no small part in determining whether local governments should borrow, how, at what rate of interest, etc.

⁴⁵ Hearings before the Temporary National Economic Committee, Part 10-A, pp. 180 and 217. In the 7 years, 1932-38, the principal companies foreclosed farm mortgages with an unpaid principal amount of \$669,559,000 and urban mortgages with an unpaid principal amount of \$1,229,849,000. (*Ibid.*, pp. 165 and 199.)

⁴⁶ *Ibid.*, Part 28, 14950.

⁴⁷ *Ibid.*, Part 10-A, pp. 161, 184, and 220.

⁴⁸ For a description of these developments and an estimate of their importance, see Temporary National Economic Committee Monograph No. 8, Toward More Housing, and ch. XIII, *infra*.

CHAPTER XII

STIMULATING INVESTMENT¹

UNDERLYING ECONOMIC ANALYSIS

The difficulties in trying to raise the level of investment have been summarized for the Temporary National Economic Committee by Prof. Alvin H. Hansen.

Let us consider what is necessary in order to keep the income stream flowing on a high level. * * * The income received or realized out of the production process of the prior week or month will either be expended for consumption or it will be saved. The part that is spent on consumption goods and services automatically becomes the source of a new income stream. The part that is saved may or may not feed into the income stream, depending upon whether or not these savings are used either by the saver himself or by a borrower for the purpose of capital goods, plant, machinery, industrial and commercial construction, houses, office buildings, schools, or public works.

If the saver does not himself use the funds, or if he fails to find a borrower who will use them to purchase plant, equipment, and other capital goods, the income stream dries up and unemployment prevails in the capital-goods industries. * * * If the amount which is saved is large, as it is likely to be at a high income level, it is necessary that equally large outlets be available for these savings in equipment and plant expansion, and in residential and public construction.²

Professor Hansen in effect considers saving, or withholding money from consumption, as an interruption in the smooth flow of income. If saving is not offset by simultaneous investment—the two need not stand in a cause-and-effect relation to each other—the consequence will be a decline in national income and an increase in unemployment.³

It follows from this analysis that, "If it can be established what proportion of an assumed national income will be saved, or withheld from current consumption, it is also established how large the outlets for or offset to saving will have to be to attain and sustain that national income. Hence the problem of maintaining full employment is the problem of securing sufficient outlets for the saving that will accompany full employment."⁴

The magnitude of the problem of securing adequate investment opportunities, and thus of utilizing savings and maintaining a high level of income and employment, depends upon the amounts which the community desires to withhold from consumption at a level of income corresponding to full employment. In a pure consumption economy everyone would desire to consume his full income, whatever its size, and in such a society no investment problem would exist. In a high-savings economy the distribution of income and habits of

¹ This chapter was written by Dr. Paul M. Sweezy, Department of Economics, Harvard University. It was reviewed and criticized by Dr. Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University; Dr. Alvin H. Hansen, professor of economics, Harvard University; and Dr. Seymour E. Harris, Department of Economics, Harvard University.

² Hearings before the Temporary National Economic Committee, Part 9, pp. 3500-3501.

³ See also the exposition of Dr. Lauchlin Currie, *ibid.*, pp. 3521-3522.

⁴ *Ibid.*, p. 3523.

thrift are such that a relatively large amount is saved in prosperous times. The United States today falls into the category of a high-savings economy.⁵ The problem of investment outlets thus becomes one of paramount importance to the economic well-being of the country.

One of the special characteristics of a high-savings economy is that it possesses potentialities of rapid progress and dynamic change. A large part of its resources are continuously available for doing new things in new ways. If conditions are favorable it can settle new areas, add new industries, absorb large population increases without curtailing its accustomed standard of living.

At the same time, however, a high-savings economy is inherently subject to sharp fluctuations in economic activity and national income. Any saturation of investment outlets, however temporary in nature, is certain to be accompanied by a sharp decline in output and employment. The appearance of new opportunities for expansion, on the other hand, can give rise to an immediate resumption of the interrupted upward trend.

Finally, as Hansen pointed out to the committee—

If such an economy fails to find adequate investment outlets in plant and equipment for its new savings and for its depreciation allowances, it will lose its dynamic quality and become a depressed and stagnant economy, with a large volume of chronic unemployment. The high-savings economy can escape a fall in income and employment only through the continuous development of new outlets for capital expenditures on industrial plant and equipment, and on commercial, residential, and public construction.⁶

HISTORICAL BACKGROUND OF THE PROBLEM

The decade of unemployment through which we have just passed is quite unprecedented as to both duration and severity. According to one witness testifying before the Temporary National Economic Committee, this may properly be regarded as a symptom that we are now experiencing the consequences of certain major economic changes as fundamental as the industrial revolution of 150 years ago.⁷

The dominant characteristic of the nineteenth century was a vast expansion in population and correspondingly great migrations into new and previously largely unsettled areas. Territorial and population expansion accounted, directly and indirectly, for perhaps one-half of total capital outlays throughout the nineteenth century.⁸

This great movement, unique in world history, reached its apex in the decade immediately preceding the World War of 1914-18. So far as the United States is concerned, the largest absolute population increment occurred during the decade 1901-10, an increase which was not quite equaled during the 1920's, and which fell off by about one-half during the 1930's. All estimates indicate the probability of a further continuous decline in the decennial increase of population.⁹ This decline in the rate of growth is in itself sufficient to exert a depressing effect, since the system has been geared to absorb the larger

⁵ Both Hansen and Currie appear to hold this view. See Hearings before the Temporary National Economic Committee, Part 9, pp. 3536-3537. For further supporting evidence, see ch. IX, *supra*.

⁶ Hearings before the Temporary National Economic Committee, Part 9, p. 3503.

⁷ *Ibid.*

⁸ *Ibid.*, p. 3504.

⁹ *Ibid.*

increments of past periods.¹⁰ To illustrate: if, as Hansen believes to be the case, the long-term trend of residential construction tends to vary with the rate of population growth¹¹ (assuming a constant income structure), then a drop in the rate of population growth will probably be accompanied by a decline in residential construction, which constitutes an important investment outlet.

The prosperity of the 1920's was clearly connected with demand for capital in several directions. The greatest building boom in our history occurred during the years 1923-28.¹² Exports of capital, particularly to war-torn European countries, averaged around \$1,000,000,000 a year.¹³ State and local governments borrowed heavily for construction of roads, schools, and other public works.¹⁴ Consumer credit expanded enormously.¹⁵ And, last, but by no means least, the great automobile industry, with all the supplementary and subsidiary industries dependent upon it, was growing to its full stature during the twenties, and in the process opening vast outlets for capital investment.¹⁶

None of these factors regained its importance during the thirties. Real estate values collapsed, the percent of occupancy falling by 1932 to all-time low levels. The yearly increase in the number of new families became less and less. Consumer credit institutions were lending money with caution. State and local governments became so enmeshed in financial difficulties that some of our largest cities were unable even to meet greatly reduced pay rolls, much less to continue making capital outlays. The Federal Government, to be sure, tried to take up the slack in its program of public works, but the total amount of public construction was on the whole less than that during the middle and late twenties.¹⁷

The automobile industry began to focus much of its attention on the "used car problem" and replacement markets.¹⁸ Foreign countries, instead of absorbing American capital, were suffering from economic and political disturbance of such catastrophic proportions that funds flowed, or rather fled, to the United States on the most gigantic scale ever witnessed in the history of international gold movements.

Two further considerations of a less tangible sort are equally relevant in this connection. First, as Hansen says, "we must face the fact that we live in a peculiarly risky world, and this fact does have a repressive effect. It makes the problem of adequate investment outlets more difficult."¹⁹ It would doubtless be over-optimistic to look forward to an early stabilization in the political and international spheres which would effect a material reduction in this high risk factor. Second, the researches of the Committee, summarized and analyzed in foregoing chapters, make it clear that economic power and control over investment decisions are now concentrated in relatively few hands.

¹⁰ *Ibid.*, p. 3506.

¹¹ *Ibid.*, p. 3512.

¹² *Idem.*

¹³ *Ibid.*, p. 3513.

¹⁴ *Ibid.*, p. 3512.

¹⁵ *Ibid.*, p. 3513.

¹⁶ *Idem.*

¹⁷ *Idem.*

¹⁸ *Ibid.*, exhibit No. 545, p. 3516.

¹⁹ *Ibid.*, p. 3545.

EXPANDING INVESTMENT BY EXPANDING CONSUMPTION

Some argue that so long as there exists an urgent need—as there undoubtedly does today—for a great increase in the provision of consumers' goods and services, these unsatisfied consumers' wants per se provide the basis for vast expansion in plant and equipment for an indefinite period in the future.

This argument identifies the social need for increased output of consumers' goods with opportunities for profitable investment in making provision for such increased production of consumers' goods. Unfortunately, needs and wants must be backed up by purchasing power before they count in the market place. The proponents of the view that unsatisfied consumers' wants provide an inexhaustible reservoir of investment outlets usually fail to show where the great mass of consumers can get the purchasing power necessary to make their wants economically effective. There is no automatic mechanism in the economy to insure the ever-increasing flow of funds into consumption channels necessary to translate human needs into opportunities for profitable investment.

Starting from a low level of national income, an increase in consumption would probably provide a net investment outlet.²⁰ Thus for a time income would rise because both of its components, investment and consumption, rise. In a high-savings economy, savings requiring investment outlets are greatest when income reaches its maximum.

This brief and necessarily oversimplified consideration of certain fundamental economic relationships should be sufficient to warn against the easy assumption that unsatisfied consumers' wants can be relied upon to provide the investment outlets which a high-savings economy must have if it is to achieve and maintain a state of genuine prosperity and full employment. Consumers' wants must be implemented with purchasing power.²¹

To transform a high-saving economy into a high-consumption economy requires devising means of reducing the amount of savings, and hence increasing the amount of consumption to a point commensurate with a full-employment national income. This requires not merely the stimulation of consumption, but also raising the proportion of consumption to total income. Assuming full-employment income, it is clear that the greater the ratio of consumption to income the smaller will be the need for investment outlets of the expansion and innovation variety. A pure consumption economy (where consumption and income coincide) would require no new investment outlets at all.²² If appropriate means can be devised for increasing the ratio of consumption to national income, employment would be maintained and many consumers' needs would be met which at present go unsatisfied.

Generally speaking, there are two ways of influencing the ratio of consumption to income. The first is through the medium of gov-

²⁰ "Net" investment means additions to plant and equipment beyond replacements; similarly "net" savings means funds withheld from consumption over and above depreciation charges.

²¹ See T. J. Kreps, *Consumption—A Vast Underdeveloped Economic Frontier*, *American Economic Review*, vol. 30, No. 5, Feb. 1941, pp. 177-199.

²² This does not imply that such an economy would be technically stationary. On the contrary, it is possible to "have a very great improvement in capital equipment merely through the expenditure of depreciation and depletion allowances, without using any new savings at all." (Hearings before the Temporary National Economic Committee, Part 9, p. 3511.) In other words, capital can always be renewed in a more productive form in a pure consumption economy just as in any other.

ernment policy with respect to taxation and expenditure. Theoretically, government revenues could be raised to almost any desired degree from that portion of income which would otherwise be saved; and government expenditures would supplement the community's consumption, both collective and individual. Prior to the outbreak of the present war in Europe, Great Britain had already gone far with such a policy. Hansen produced evidence to show that by 1937 Britain was saving little more than half as much of her national income as in the pre-World War period.²³ But Britain had recovered from the depression of 1929-33 to a greater extent than the United States. Though Britain's experience demonstrates what the taxation of high incomes and the expenditure of the receipts on expanded social services of various kinds can accomplish²⁴ it would be unwise to expect the results to be the same in this country. And the effect of increased taxation on the incentive to save should not be overlooked.

The second way of raising the ratio of consumption to income is through price and wage policy. Higher money wages with no change in prices, or, alternatively, lower prices for goods entering into mass consumption with no change in money wages will certainly increase real wage rates and reduce the total volume of profits. Since wage earners by and large spend the greater part of their incomes, while profit-receivers do the bulk of the Nation's saving,²⁵ this appears to be a method of raising the ratio of consumption to income. But if wages are increased, costs may be increased, and profits decreased. This may cause unemployment.

But there are certain consumption goods industries in which prices are controlled and large monopoly profits are made. Wherever this is the case, a forced price reduction would not reduce production and create unemployment, as it would under competitive conditions,²⁶ but rather would reduce profits and expand production. If the commodity in question is an object of mass consumption, it is safe to assume that a net increase in consumption and a net decline in savings would result, which is precisely what is desired.

The devices for increasing consumption are as numerous as the devices for (1) increasing the earning capacity and productivity of those of low income, (2) increasing their money income, and (3) increasing the buying power of the income they receive by wiser spending and lower prices. To increase their earning capacity means increasing their skills and capacities, decreasing their number in congested occupations or areas, strengthening their bargaining power. To increase their money income may mean removing the burdens placed on consumers by protective tariffs, sales taxes, and the like, and providing more free income—libraries, parks, recreation, education, old age pensions, unemployment compensation, etc. To increase the buying power of their income means lower industrial prices, removal of inefficient and wasteful practices in distribution, etc.

There is no inconsistency between attempting to raise the ratio of consumption to income on the one hand, and increasing the volume of investment on the other. On the contrary, it seems obvious that a

²³ Hearings before the Temporary National Economic Committee, Part 9, pp. 3554-3555.

²⁴ *Ibid.*, p. 3556.

²⁵ See ch. IX.

²⁶ Under competitive conditions a forced price reduction also creates an artificial shortage in the sense that more is demanded than is supplied at the new price.

soundly conceived campaign against unemployment and stagnation should include simultaneous assaults along both the consumption and investment fronts.

METHODS OF STIMULATING PRIVATE INVESTMENT

Businessmen invest in plant and equipment when, and only when, they expect to make a profit thereby. Their expectations are governed, generally speaking, by the rate of current sales and orders. Consequently, an important stimulus to private investment is the maintenance of a steadily increasing level of consumer expenditures.

Given this initial confidence in future demand, businessmen may expect to make a profit if expected receipts are larger than interest and depreciation charges over the life of the capital facilities to be acquired. Consequently, the decision whether to invest depends upon (1) the expected size of future sales, (2) the rate of interest, and (3) the present cost of investment which determines the size of the capital outlay involved. Expectation of larger sales, a lower rate of interest, and a lower cost of investment will tend to raise the level of investment, and, conversely, smaller returns, an interest rate, and a higher cost of investment will tend to lower the level of investment.

This applies to an individual business enterprise. So far as the economy as a whole is concerned, there are other factors which enter into the determination of the total volume of investment, chief among which are the availability of new fields for investment and the ease or difficulty with which business firms may move in to take advantage of such opportunities. Thus barriers of a monopolistic or legal character may restrict investment by preventing entrepreneurs from taking advantage of profitable investment opportunities.

Generally speaking, the cost of investment may be taken as synonymous with the prices of investment goods. Where prices are held high due to monopolistic or other restrictive means, there is a clear case for a dynamic policy of price reductions which will sell more goods and lower costs. If artificially maintained prices are attacked, the net effect will be to increase investment through lowering the costs of investment goods. Attorney General Thurman Arnold's campaign has verified this many times over.

Prices of producers' goods have been at uneconomically high levels since the early 1920's. In prosperity and depression alike, producers' goods have been consistently higher in price than all commodities, whether one takes 1913, 1923, or 1929 as a base. There has been a pronounced tendency for the gap to become wider in recent years.²⁷

There may be definite limits to the efficacy of price policy as a stimulator of new investments. The adjustment downward of various important producers' goods' prices to bring them into proper line with costs of production, however, may open up favorable opportunities for investment. To mention one example, residential construction discussed in detail in the next chapter, offers considerable possibilities. But when the adjustment has been completed and prices everywhere bear a proper relation to costs of production, this source of new investment opportunities may tend to disappear. Even a perfectly functioning price system is no guarantee of a continuous increase in the volume

²⁷ See ch. III above.

of investment outlet, though it may raise and maintain it at a much higher level than at present.

It has frequently been assumed that outlets for profitable investment could be expanded almost indefinitely merely by lowering the interest rate. Realistically viewed, there are two limitations on the validity of this assumption, though its underlying logic is sound.

(1) The elasticity of investment with respect to changes in the interest rate may be smaller than has been usually believed. In the case of short-lived capital goods, interest is a relatively unimportant cost. In a dynamic world in which technological changes bulk large, no practicable change in interest rates is likely to have a large influence on investment decisions of this kind. In the case of long-lived capital goods, interest costs are significant but it is also true that the factor of risk increases in importance with the length of the investment period. No one will invest in a 50-year project, no matter how low the interest rate, if he feels that there is a good chance that intervening disturbances may completely destroy its value. Generally, economists are becoming increasingly cautious in estimating the results to be expected from interest rate reductions.²⁸

(2) It is evident that discussion of the interest rate may involve over-simplification, since there is no universal rate. While rates on Government borrowing have fallen to record low levels, capital costs in certain fields and to certain classes of borrowers remain relatively high. Since these may be the areas of highest sensitivity of investment to interest rate changes, it appears that a general attack on the problem is not likely to be fruitful. What is needed is rather a two-sided program designed (1) to discover the fields in which the elasticity of investment with respect to interest rates is high, and (2) to devise appropriate means of reducing rates in these fields.

The investigations of the Temporary National Economic Committee have served to establish the fact that there are at least two fields in which interest rate reductions might be expected to have a substantial effect on the volume of private investment. These are residential construction and small business.

Interest charges constitute a large part of the monthly or annual cost of housing and consequently a reduction in mortgage interest rates acts as a stimulant to the demand for dwelling facilities. Moreover, during the past 10 years substantial reductions in the effective interest rate have actually been brought about through the intervention of the Federal Government, chiefly by means of the Federal Housing Administration's mortgage guarantee system.²⁹

As to small business, a study prepared for the Committee indicates that unfilled demands for capital, both equity and loan, loom large and that the obstacles to their satisfaction are inadequate facilities and exorbitant interest rates.³⁰ There is a great variety of ways suggested for increasing the availability and reducing the cost of capital to small business, running all the way from application of the loan insurance principle to the establishment of a new system of capital banks under Government auspices.³¹ Through the artificial maintenance of un-

²⁸ See, for example, J. R. Hicks, *Value and Capital*, Oxford, Toronto, 1939.

²⁹ Temporary National Economic Committee Monograph No. 8, *Toward More Housing*, pp. 80-91. See also ch. XIII, *infra*.

³⁰ Temporary National Economic Committee Monograph No. 17, *Problems of Small Business*.

³¹ *Ibid.*, p. 236 ff. See also ch. XIV, *infra*.

justifiably high prices for investment goods, monopoly may restrict the volume of investment in industries using these monopolized products. This is, however, by no means the full extent of the repressive effect which monopolistic conditions exercise on the volume of investment.

High prices mean low volume and low volume means relatively small requirements for plant and equipment in the monopolized industry itself. To an outsider the industry might appear to offer excellent opportunities for investment. The product of additional plant could be sold at prices somewhat under the monopoly price and still earn a good profit. But to the monopolist extra production would mean lower prices for his entire output. The profit gained on the additional plant would be more than offset by the loss from lower prices for his existing volume of output. Hence the monopolist not only does not increase his own investment; he also does everything in his power to prevent others from entering his industry. The way must be cleared for new competitors to enter the industry to take advantage of what is to them a favorable investment opportunity.

While underinvestment in the sense indicated is an almost universal accompaniment of monopolistic conditions, there is yet another way in which monopoly may exercise a restraining effect on investment. This concerns the rate of adoption of new techniques of production.

In a competitive industry an entrepreneur who develops an improved product or a superior method of production will proceed at once to make whatever outlays on new plant and equipment may be necessary to put it into operation. His doing so inevitably results in losses to his competitors. Their earning power is damaged by the better product or lower cost of their rival; their capital suffers a decline in value; some may even be forced into bankruptcy; others will be saved only by making fresh outlays in order to adopt the new and improved techniques which are now available. From some points of view the results of this competitive struggle are favorable. New investment is maintained at a relatively high level, and consumers reap the advantages of technological progress in the form of higher quality or lower price or both.

The case is quite different in monopolistically dominated industries.³² The rate of introduction of new techniques and improved products and hence the volume of new investment is less under monopolistic than under competitive conditions. This does not mean that monopolists habitually suppress new inventions and technological improvements, though the contrary is frequently assumed to be the case. The real problem turns around the rate of introduction of new techniques. The monopolist is always under temptation to put new techniques in the place of old only as the latter wear out, and depreciation reserves become available as a source of necessary funds. In this way no net investment whatever results from the technological innovation, though suppression is not involved. In short, under monopoly new methods tend to succeed old methods; under competition new methods tend to replace old methods. The difference from the point of view of the volume of investment may be large.

Some obstacles to potential investment opportunities, aside from those stemming from monopolistic control over industry, are undoubt-

³² See Temporary National Economic Committee Monograph No. 22, *Technology in Our Economy*, and ch. V, *supra*.

edly to be found in various laws of both Federal and local governments. Most such legislation, however, is directed at problems other than investment, which militates against any simple solution. For example, no one would suggest repealing laws forbidding the sale of narcotics simply because this would be one method of providing a profitable investment opportunity. On the other hand, there are clear cases of legislation so ill-suited to its ostensible purpose that its effect on investment may well be predominantly considered. This is true, for example, of local construction codes prescribing building specifications which prevent the utilization of the most modern materials and the most efficient methods.

Between these two extremes there are innumerable types of legislation which directly or indirectly restrain the volume of investment. Some of these laws, like those which obstruct the interstate flow of goods,³³ could certainly be advantageously repealed or modified. But each law should be carefully examined on its merits, and its effect on investment, too often overlooked in the past, should be given full weight in reaching a final decision.

INCREASING PUBLIC INVESTMENT

Public investment is distinguished from private investment by certain important general characteristics which stem from the fact that the former, unlike the latter, is not dominated by considerations of profitability.

There are and always have been many vital social needs requiring large capital outlays for their satisfaction which do not create profit-making enterprises. The scope of the fields in which private enterprise cannot operate on this account varies greatly in the course of social evolution. Such items as fortresses, cantonments, and the varied paraphernalia of war; housing and equipment for police, firemen, and public officials; schools, public roads, improving navigable waterways, etc., have long been regarded as necessary and proper fields for public investment. Today the number of things which the people expect the Government to provide is probably larger than ever before in history.

The doctrine that Government should plan the volume and timing of its public works³⁴ expenditures in such a way as to alleviate the ups and downs of the business cycle has long been familiar and, it is probably safe to say, is accepted in one form or another by many businessmen and professional economists. Many agree that government should concentrate its investment activities in times of depression and withdraw from the scene in times of prosperity.

To recognize the vital interconnection between Government investment and national income does not imply advocacy of an expanded long-range Government investment program. It is not only possible but probable that a policy of stimulating private investment or of increasing the ratio of consumption to income, or some combination of these, will in the end overcome the main obstacles to lasting prosperity in a high-savings economy. But in the interim, according to one school of economic thought, shoring up by public investment may be necessary. As Hansen stated to the committee:

³³ See ch. VI, *supra*.

³⁴ The term "public works", if broadly interpreted, may be taken as synonymous with "Government investment." The latter expression is employed throughout the present chapter to keep in mind the significance of Government activity in terms of the savings-and-investment theory.

Considering the current investment outlet deficiencies compared to the decade of the twenties, to which I have referred, it appears very doubtful that we can solve our problem of full employment by relying exclusively on private investment. Private investment, it seems to me, will have to be supplemented and, indeed, stimulated by public investment on a considerable scale. Public investment could furnish an outlet for a part of our flow of savings and thus put them to active use, raising income and employment above the current chronic stagnation level.³⁵

And again:

We cannot afford to engage in irresponsible public spending. On the other side, we cannot afford to be niggardly with respect to public investment prospects which are either directly or indirectly productive, and which serve to raise the standard of living and thereby contribute to private business expansion, and especially is this the case when we have huge unused and idle resources.³⁶

What are the implications of this view? What problems arise in connection with an attempt to formulate a long-range program of Government investment as one method of attacking the stagnation of national income and employment which a high-savings economy tends to generate?

Fields for Public Investment.

There are many types of projects requiring capital outlays which fall within what is generally conceded to be the proper sphere of Government activity. Some of these, such as the construction of public school buildings, have long been responsible for the expenditure of very considerable sums of money. While the aging of the population which accompanies a slowing down in the rate of growth has already brought about a diminution of numbers in the lower grades, and though eventually the total population of school age will be considerably smaller than now, physical facilities for educational purposes are woefully inadequate in many parts of the country, so that substantial capital outlays will be needed for a long time to come.

Other types of Government construction, such as sewers and water systems, noneducational public buildings, and miscellaneous construction projects, which have also bulked large in the past, will continue to demand attention in the future but probably not on a greatly expanded scale.

The outlets for Government investment activity which have just been listed—educational buildings, sewers and water systems, noneducational buildings, and miscellaneous construction—accounted in the period 1920-36 for a yearly outlay of about \$800,000,000, or 40 percent of total government construction.³⁷ A continuation of outlays of roughly the same magnitude may probably be anticipated in the near future. Careful planning, particularly with a view to timing projects in such a way as to offset unavoidable economic fluctuations, is of enormous importance in these fields.

The broad fields in which expanded government investment is most urgently needed are well known, and require no extended discussion here. National defense stands in a category by itself. Recent developments abroad have forced the United States to embark upon a huge program of building up its armed forces. This will provide by all odds the largest outlet for government investment in the near future.

³⁵ Hearings before the Temporary National Economic Committee, Part 9, p. 3546.

³⁶ *Ibid.*, p. 3548.

³⁷ Maintenance and work-relief construction are excluded. Hearings before the Temporary National Economic Committee, Part 9, exhibit No. 616, p. 4065.

Military and naval expenditures averaged more than \$7,000,000,000 a year in the period 1917-21.³⁸ Of this amount a large part can properly be called investment. During the next 17 years, however, military and naval construction averaged only a little more than \$100,000,000 annually.³⁹ These facts illustrate what may be expected to happen again when the present emergency has passed. National defense cannot and should not be regarded as a permanent solution to the problem of investment outlets. Hence, however large defense may bulk in the near future, Government investment in peacetime should not be overlooked.

The greatest fields for Government investment, quite aside from national defense in the narrow sense of the term, are those which provide basic facilities for preserving our precious heritage of natural resources and for making the country a healthier, safer, and pleasanter place in which to live. These include such activities as flood control, soil conservation, and reforestation, on the one hand, and the building of bridges, highways, hospitals, parks, playgrounds, on the other. It would be out of place in a general discussion to attempt an estimate of the quantitative extent of the community's needs in these respects. It is sufficient to point out that the possibilities of expansion are enormous.

Financial Problems of Government Investment.

Among the most important problems involved in a program of Government investment are those connected with costs incurred and methods of financing employed. It is essential that these problems be given the most careful consideration in the ultimate determination of policy.

The fundamental financial question in connection with Government investment is one of fiscal policy. Government investment is not only an aid to private investment; it is also an offset to savings. But this is true only when it is financed by borrowing or by taxes which reduce saving.⁴⁰ Investment can be stimulated by public works financed out of consumption taxes, but to the extent to which that is done, the two parts of the program are working against each other, and the investment is not realizing its potential value.

A sharp distinction is drawn between those projects which are, and those which are not self-liquidating. A self-liquidating project is one which earns interest and enough more, over the life of the project, to repay the original capital outlay. Such a project is, so far as financial theory is concerned, on a par with an ordinary private investment. The money can be raised by borrowing; both interest on the loan and repayment of the principal can be taken care of out of earnings. Public investments of a self-liquidating character involve no burden, direct or indirect, on the public treasury, and their financial soundness can scarcely be the subject of dispute. Hansen expressed a widely held view when he told the committee:

These offer no difficulty with respect to financing, and about these there can be, I think, no serious ground for controversy.⁴¹

³⁸ See chart, War Against Germany, Receipt and Disposal of Federal Funds, Total (fiscal years) 1917-21, Hearings before the Temporary National Economic Committee, Part 9, p. 4170.

³⁹ Ibid., exhibit No. 616, p. 4065.

⁴⁰ See Temporary National Economic Committee Monograph No. 20, Taxation, Recovery, and Defense, pp. 200 ff.

⁴¹ Hearings before the Temporary National Economic Committee, Part 9, p. 3547.

Just how much room there is for public investment of a clearly self-liquidating character is certainly not easy to estimate. Hansen mentioned, as possibly falling into this category: Toll roads, bridges, tunnels, municipal express highways and boulevards through congested areas, rural electrification and rehabilitation projects, a railroad equipment authority to purchase and lease equipment to railroads.⁴² The list is far from exhaustive, and it is conceivable that a careful canvass of the field would reveal potentialities of a magnitude at present unsuspected.

Self-liquidating and nonself-liquidating projects are not contradictory nor mutually exclusive categories. In reality, the dividing line is not so distinct nor its location so definite as people assume. At a 5 percent interest rate, a million-dollar project which will last 10 years will be self-liquidating if it yields \$150,000 per annum. If, however, the interest rate is 2 percent and the project will last 50 years, it will be self-liquidating if it yields only \$40,000 per annum. Thus one must know more about a given project than its probable cost and revenue in order to determine whether or not it is self-liquidating. These are important factors, but equally important are the rate of interest and the probable life of the project. A project which is nonself-liquidating at 5 percent may well fall into the self-liquidating category at some lower rate of interest.

In this connection, Berle's proposal to establish a new system of capital banks has special significance.⁴³ He suggested that there be created a system of banks under public, or joint public and private, auspices which would be empowered to create credit for long-term capital purposes just as commercial banks now create credit for short-term uses. These banks would be entitled to lend for either public or private projects. Further, they would be empowered to graduate interest rates in accordance with the nature of the projects to be financed. As Berle explained:

There may be every reason for asking 4 or even 5 percent return from a commercial enterprise; but there should be the possibility of charging, say one-eighth of 1 percent for a noncommercial enterprise, such as a hospital. It is to be remembered that when the Government gives to a banking organization the power to create money, it no longer is necessary to offer an interest rate to stimulate that creation.⁴⁴

Even with low interest rates, many of the most desirable public projects from the point of view of community welfare must be classed as nonself-liquidating for the simple reason that it is not feasible to charge for their services. By their very nature, most highways, conservation works, recreational facilities, to mention only a few, cannot be revenue-yielding. Yet obviously these are just as significant socially as any which can be made self-liquidating.

Once this is realized, certain popular objections to nonself-liquidating public investment are seen to rest on faulty reasoning. In particular, the notion that a revenue-yielding project is wealth while a nonrevenue-yielding project is a dead loss is entirely fallacious. Berle, in his testimony before the committee, illustrated this point in the following example:

⁴² *Idem.*

⁴³ Hearings before the Temporary National Economic Committee, Part 9, pp. 3809 ff.

⁴⁴ *Ibid.*, p. 4073.

In New York there are two bridges: The Brooklyn Bridge, which is free, and the George Washington Bridge, which is a toll bridge. The Brooklyn Bridge makes possible the free flow of traffic from one part of New York to another, and therefore adds to the wealth of the entire city, though it does not charge by the unit, and is supported out of the tax roll. The George Washington Bridge is owned by the Port Authority and pays its way by a standard charge collected from each passing car. It likewise assists the free flow of goods, though a different method of payment is used. It is absurd to say that the Brooklyn Bridge is not "wealth" and that the George Washington Bridge is "wealth," merely because of this difference.⁴⁵

The financial differences between self-liquidating and nonself-liquidating projects are, however, real and important. A nonself-liquidating project, if it involves any considerable capital outlay, must ordinarily, though not always, be paid for in the first instance from borrowed funds. In this respect it does not differ from a self-liquidating project. But money for interest and amortization must be raised by taxation, and this involves a transfer of funds from taxpayers as a group to Government bondholders as a group.⁴⁶ If the sums to be transferred are moderate, no special difficulties are presented. But the fear is often expressed that a long-range program, which envisages a continuation of nonself-liquidating Government investment as a method of absorbing a part of the savings stream, will inevitably result in steadily increasing transfers which eventually will lead to some sort of a breakdown in the Government's fiscal system. It is therefore argued that nonself-liquidating Government investment financed out of borrowed funds is unsound. According to this view, the amount of nonself-liquidating projects should be confined to those which can conveniently be financed out of current tax receipts.

But the financial problems of nonself-liquidating Government investment take on an altogether different aspect if revenue and taxable capacity move ahead in roughly the same proportion. It is obvious that the difficulty of transferring larger sums from taxpayers to bondholders would not then be increased.

This does not constitute a justification for unlimited outlays on projects of a nonself-liquidating character. On the contrary, care should be exercised to insure that the rate of increase of carrying charges to be met from taxation should not get seriously out of line with the rate of increase of national income. But, so long as the limits imposed by this relationship are observed, nonself-liquidating Government investment is a sound financial proposition.

BUDGET REFORM: THE QUESTION OF THE DOUBLE BUDGET

An aspect of public investment closely related to those just considered is that of budgetary procedure. The purpose of the budget in public affairs is to provide a clear and accurate account of the state of the Government's finances as a guide to the wise formation of policy. In a democracy, moreover, budgetary procedure should also be intelligible

⁴⁵ *Ibid.*, p. 4071.

⁴⁶ This statement is strictly true only if the amortization charges are used to pay off the initial loan. If, however, they are used to maintain and replace the physical investment as it wears out, this part of the money raised from taxpayers is transferred to contractors, manufacturers, and workers instead of to bondholders. Ordinarily the latter procedure will be followed since an investment which is worth making is also usually worth keeping up. In either case, however, the financial transfer problem is essentially the same.

to the general public. There can be no doubt that our present budget fails in several important respects to meet these criteria. Only those aspects of the budget, however, which are relevant to public investment will be touched upon here.

At present the Government has no property account; war debt and debt incurred for relief purposes are lumped together indiscriminately with debt contracted in the course of acquiring valuable physical assets; the same is true of interest payments; depreciation of Government property is not calculated; revenue from earning assets is recorded in a multiplicity of accounts and no effort is made even to calculate the total. In short, present budgetary procedure is ill-suited to assist in the difficult task of formulating a rational long-range program of Government investment.

Many of the weaknesses of the present budget could be largely eliminated without any fundamental change in accounting principles, simply by attending to such matters as depreciation and write-offs; and by such a regrouping of accounts as would display significant items in their relation to each other.

On the other hand, it may be that more fundamental reform, along the lines of the so-called double budget discussed by Hansen,⁴⁷ is now desirable. The double budget, which has already been adopted by Denmark and Sweden, is essentially the application of the accounting principles of private business to Government bookkeeping. Transactions on capital account are sharply distinguished from those which pertain to current revenues and expenses, and the two are recorded in separate sets of books. This merely corresponds to the distinction between capital and income which is the cornerstone of profit-and-loss accounting as it is practiced in private business.

Suppose the Government borrows \$10,000,000 to construct a dam. Under a double budgetary set-up the capital budget will show an increase in Government assets of \$10,000,000 and an offsetting increase of liabilities in the form of debt of an equal amount. Into the operating budget will go operating costs, depreciation, and interest, along with revenue, if any, from the sale of the services of the dam. To the extent that revenue falls short of operating costs, depreciation and interest, as it would in the case of nonself-liquidating projects, the balance must be made up from the proceeds of taxation.

One further advantage of the double budget should be noted. The public by and large is accustomed to and familiar with the accounting methods of private business, and is, therefore, likely to be confused or misled by the Government's unitary budget system. Insofar as Government accounting can be brought into line with business accounting, it is evident that public understanding of Government finances, and hence public participation in the formulation of policy, would be materially advanced.

⁴⁷ Hearings before the Temporary National Economic Committee, Part 9, pp. 3839-3854. See also Temporary National Economic Committee Monograph No. 20, *Taxation, Recovery, and Defense*.

CHAPTER XIII

INVESTMENT IN THE HOUSING INDUSTRY ¹

THE IMPORTANCE OF THE HOUSING INDUSTRY

The construction of houses is one of our most important industries, but for the past 10 years it has been one of the most depressed industries. In 1929 the contract-construction branch of the construction industry, of which residential building forms a large part, accounted for 4.5 percent of the national income. By 1933 this had fallen to 1.3 percent of a much reduced national income. The ensuing recovery in national income was attended by a recovery in the relative importance of contract construction, but the figure had only reached 2.7 percent by 1938.² The same picture emerges if we view the problem from the angle of investment outlets. During the period 1921-29, residential and nonprofit construction accounted for approximately 30 percent of all income-producing expenditures that offset saving. But in the period 1930-38 this had fallen to 15 percent, despite the sharp decline in the total amount of such expenditures.³

This explains in large part both the disastrous depression of 1929-33 and the halting nature of the subsequent prosperity. Building was one of the mainstays of the boom of the twenties; its failure to make a real comeback must count heavily in the explanation of the relative stagnation of the thirties.

It would appear that, insofar as our economic problems can be solved by increasing investment, there is no more suitable or important field than that of residential building.⁴

THE NATION'S HOUSING NEEDS AND HOW THEY ARE BEING MET

There is no doubt about the existence of a great social need for new residential construction, particularly of a type suitable for the lower income groups. The salient facts in this connection were presented to the committee by Dr. Isador Lubin, Commissioner of Labor Statistics, on opening the hearings in the construction industry and may be usefully summarized here.⁵

In 1939 the vacancy rate was very low, about 2 percent for the country as a whole. This indicates that there is no surplus of houses

¹This chapter was written by Dr. Paul M. Sweezy, department of economics, Harvard University. It was reviewed and criticized by Dr. Theodore J. Kreps, professor of business economics, Stanford University; Dr. Alvin H. Hansen, professor of economics, Harvard University; and Dr. Seymour E. Harris, department of economics, Harvard University.

²Temporary National Economic Committee Monograph No. 8, *Toward More Housing*, by Peter A. Stone and R. Harold Denton, p. 126.

³Percentages computed from Dr. Lauchlin Currie's revised figures on *Income Producing Expenditures That Offset Savings*. Hearings before the Temporary National Economic Committee, Part 9, p. 4122.

⁴See Hearings before the Temporary National Economic Committee, Part 11.

⁵*Ibid.*, pp. 4966-4968.

available for increased future needs. Over the next decade there will be an annual increase in nonfarm families requiring homes of at least 280,000.⁶ Some 45,000 dwelling units can be expected to be retired every year through demolition. It follows that annual construction of new units at the rate of 325,000 will be necessary if the vacancy rate merely remains at its present level.

This figure is, however, by no means an adequate measure of housing needs. There are now at least 4,000,000 substandard dwellings—units which are either unfit for human habitation or in need of major repairs, which will eventually require replacement. If these should be replaced with new houses over a period of 20 years, or at the modest rate of 5 percent per year, a further 200,000 units will be needed every year. This calculation makes no allowance for the large number of houses which will sink into the substandard category in the future.

It appears, then, that during the next decade a total of 525,000 units (325,000 to prevent an actual shortage in accommodations and 200,000 to replace obsolete structures) will constitute the minimum annual need for new construction. As Lubin pointed out, however: "With 525,000 additional units for the next 10 years, there will hardly be any increase in the standards of the American people in terms of their housing."⁷

The other side of the picture is the actual volume of new construction. During the 1930's the average rate of new nonfarm residential building was 220,000 units per annum. The largest amount of building in any one year was 465,000 in 1939.⁸ It seems clear that the deficit in American housing has been increasing, and that even now private enterprise is not producing at a rate sufficient to meet minimum requirements.

Housing needs are by no means revealed in overall figures. Only slightly less important is the type of new housing built. It would appear that each income group should get its fair share of new houses. As a matter of fact, however, this does not happen; the great majority of new units are so expensive that only the more well-to-do can afford to live in them. Stone's estimates illustrate this situation very clearly.

In 1938 about one-tenth of 1 percent of the new houses built were within reach of the 37 percent of nonfarm families with incomes under \$1,000; 3.7 percent of the new houses were within reach of the 24 percent of nonfarm families with incomes between \$1,000 and \$1,500; 15 percent of the new houses were within reach of the 15 percent of nonfarm families with incomes between \$1,500 and \$2,000; and the remaining 81 percent of new houses could be afforded only by the 24 percent of nonfarm families with incomes over \$2,000. In other words, less than one-fifth of our new building is suitable for those with incomes under \$2,000, who constitute more than three-quarters of total nonfarm population.⁹

The implications of these figures are clear. New housing for the upper income groups is relatively abundant, while the increasing needs of the lower income groups must be met largely from hand-downs which become sufficiently cheap through depreciation. If a similar

⁶ Stone puts the figure at 340,000. (Temporary National Economic Committee Monograph No. 8, pp. 20, 21.) If this be accepted as the more accurate figure, all the estimates of needs should be correspondingly increased.

⁷ Hearings before the Temporary National Economic Committee, Part 11, p. 4967.

⁸ Temporary National Economic Committee Monograph No. 8, pp. 22-23.

⁹ *Ibid.*, pp. 24-25.

situation existed in the automobile industry, new production would be concentrated on Rolls-Royces and Cadillacs, while the less well-to-do would drive second- and third-hand cars, and the poor would have to be satisfied with eleventh- and twelfth-hand jalopies of a pre-World War vintage.

Furthermore, it is evident that at the present inadequate rate of new construction, the burden of declining housing standards falls not on the wealthy but on the lowest income groups who are in need of healthy and decent surroundings.

So far the discussion of housing needs has been in terms of maintaining present standards of housing. If our aim is an improvement in standards the scope of the problem is obviously widened. Suppose it were considered desirable to step up the rate of replacement of substandard dwellings to 10 percent per annum instead of 5 percent as postulated above—in other words, to replace our 4,000,000 substandard units in 10 years instead of 20. In this case, total new requirements for the next decade would be advanced to some 725,000 units a year. This is a large figure, but certainly not unattainable; new construction averaged 700,000 during the great housing boom of the twenties, and in the peak year of 1925 more than 900,000 dwellings were built.¹⁰

The stimulation of residential construction, therefore, would be a method not only of providing an investment outlet for savings, but also of meeting one of the Nation's most urgent social problems, decent housing for its people.

STIMULATING PRIVATE INVESTMENT IN HOUSING

The problem of stimulating private investment in residential construction is altogether one of reducing the cost of housing to levels within the financial reach of the great mass of medium- and low-income families. If new houses can be profitably produced to rent or sell cheaply enough, there need be no fear of a lack of demand. People must be housed, and most of them prefer decent modern quarters.

The cost of housing to the consumer is a monthly or annual cost made up of maintenance and operation, interest, depreciation or amortization, and taxes. The stimulation of private investment activity, therefore, requires the reduction of some or all of these components of the annual cost to the consumer.

To effect this end, two lines of action are open: (1) Attempt to reduce the initial cost of new houses, without impairing standards of quality and durability. This decreases the capital outlay and hence interest, depreciation, and tax charges. (2) The reduction of mortgage interest rates. This would operate directly to reduce annual carrying costs.

Reduction of the Initial Cost of Housing.

The overall, initial cost of a house includes land and construction, plus a variety of legal and professional fees. In general, construction costs average between 70 and 80 percent of the complete overall costs.¹¹ Here is where effective action must be centered.

¹⁰ Ibid., pp. 22-23.

¹¹ Temporary National Economic Committee Monograph No. 8, p. 43.

Construction costs consist of on-site labor costs, material costs, profit and overhead in approximately the following proportions:¹²

	<i>Percent</i>
Labor-----	30
Materials-----	60
Profit and overhead-----	10
Total-----	100

The problem of reducing construction costs may be approached simply from the point of view of reducing wages, material prices, and builders' profits without in any way disturbing existing techniques and methods in the industry as a whole. The limitations of this approach, however, need at least as much stress as its advantages.

So far as labor is concerned, hourly wage rates under union pay scales are undoubtedly high. But employment is highly seasonal and intermittent in character, and, considering the large proportion of skilled labor in the building trades, annual earnings, even in years of great activity, are not out of line with other industries.¹³ In years of depressed activity annual earnings, despite high hourly rates, drop to disastrously low levels.¹⁴ There have been some efforts to promote the idea of lower hourly rates along with guaranteed annual earnings as a method of reducing labor costs,¹⁵ but with the industry organized as it is at present this is an impractical scheme. Tens of thousands of small contractors employ the great bulk of building trades labor; business is as uncertain for them as employment is for workers. It is quite impossible for most of them to enter into commitments which extend much beyond the duration of a particular job.¹⁶

With respect to building materials, it is possible to anticipate more success from a policy of price reductions. Generally, in the thirties, the index of building material prices ran higher than all commodities, although the volume of construction has been sharply down.¹⁷ This is *prima facie* evidence that artificial restraints are at work, and the recent series of indictments resulting from the Antitrust Division's investigations in this field bear out this view. Generalization, however, must be undertaken with caution since data are scarce, wide variations between different localities, and a lack of standardization with respect to quality and dimensions make comparisons difficult.

Some important building materials are subject to producer control of a monopolistic sort on a national scale. This is true of steel, cement,¹⁸ and gypsum¹⁹ (the basic material in plaster). Brick prices are controlled in some areas.²⁰ Trade associations exercise a most important influence in millwork prices.²¹ Plumbing supply prices are closely regulated by a few companies which manufacture 75 percent or more of the leading articles.²²

Moreover, a variety of restrictive practices has grown up in the distributive end of the building materials industries. Manufacturers,

¹² *Ibid.*, p. 44. No general survey of the composition of construction costs has yet been made, but in Mr. Stone's opinion the above figures "appear to be typical."

¹³ *Ibid.*, table XII, p. 52.

¹⁴ *Ibid.*, pp. 52-53.

¹⁵ See, e. g., William Haber, *Industrial Relations in the Building Industry*, Harvard University Press, Cambridge, 1930.

¹⁶ Temporary National Economic Committee Monograph No. 8, p. 53.

¹⁷ *Ibid.*, p. 58, chart XII.

¹⁸ Temporary National Economic Committee Monograph No. 8, p. 62.

¹⁹ *Ibid.*, pp. 62-63.

²⁰ *Ibid.*, p. 63.

²¹ *Ibid.*, p. 64.

²² *Ibid.*, pp. 65-66.

wholesalers, jobbers, and retailers are all guilty of collusive practices designed to protect existing channels of distribution from competition of new methods and materials, and to hold up excessive profit margins.²³ The small contractor, with meager capital resources of his own, is obliged to rely on credit from retailers and has no choice but to pay prices which in many cases include a substantial padding of unnecessary charges.²⁴ The large builder in some cases escapes some of these obstacles by buying in bulk direct from manufacturers or wholesalers. But he is subject to an abuse which hardly touches the small fellow, namely, collusive bidding, through the use of so-called bid depositories, on the part of contractors and subcontractors. Arrangements of this kind are not infrequently policed by labor unions, a fact which makes them unusually difficult to circumvent.²⁵ What the large builder may gain through mass buying is likely to be lost through the concerted action of still other groups in the industry.

Precisely how much these various types of monopolistic, collusive and restrictive practices add to the final cost of construction in the way of unnecessarily high prices and profit margins is impossible to say, but the sums must be substantial.

To combat this unsatisfactory situation, the Federal Government possesses one important and effective weapon—the antitrust laws. Already, under the direction of Assistant Attorney General Thurman Arnold, the Antitrust Division of the Department of Justice has been engaged for nearly 2 years in a broad campaign to clean up restraints of trade in every branch of the construction industry. The program in the words of Mr. Arnold, is one of “simultaneous action on a Nation-wide scale against all the restraints which affect the price of the final product—the completed house.”²⁶ Since the purpose is constructive rather than punitive, the equity suit and civil decree are used wherever possible and practicable.²⁷

Mr. Arnold, in a recent book dealing with the activities of the Antitrust Division, finds certain definite evidences of concrete achievement. “In one city, for example,” he states, “since our investigation began, lumber prices have dropped 18 percent and sand and gravel prices have declined 22 percent. The low bid on a large electrical contract which was readvertised was 21 percent under the previous low bid.”²⁸ In another city, “there were a number of bid depositories operating in a way which we considered to be restraint of trade. The members of these depositories were interviewed by our investigators. In a short time every one of them informed us that he was ceasing the practice we were investigating.” Mr. Arnold believes that this is “typical of what is happening in many places.”²⁹

The favorable character of the results of antitrust enforcement in the construction industry is established, and there is every reason for continuing to push ahead vigorously along this path.

So far in this chapter attention has been confined to the possibilities of lowering construction costs through reducing the money prices of

²³ *Ibid.*, p. 69 ff. See also the testimony of Assistant Attorney General Thurman Arnold. Hearings before the Temporary National Economic Committee, Part 11, pp. 5147–5150.

²⁴ Temporary National Economic Committee Monograph No. 8, p. 72.

²⁵ *Ibid.*, pp. 54, 55, 134.

²⁶ Hearings before the Temporary National Economic Committee, Part 11, p. 5145.

²⁷ *Ibid.*, p. 5154.

²⁸ Thurman W. Arnold, *The Bottlenecks of Business*, Reynal and Hitchcock, New York, 1940, p. 197.

²⁹ *Ibid.*, p. 202.

the various materials and services entering into the building of houses. This is, however, only a small part of the whole problem.

Throughout the economic system, the factor which underlies and dominates cost is preeminently the factor of productivity—the relation of input of productive resources to output of finished goods. In case after case, manufactured articles of convenience and luxury have been brought within reach of the great mass of consumers not through the mere reduction of the money prices paid for labor and materials but through enormous increases in productivity—increases in the output of finished goods per man-hour of input. Productivity, in turn, is governed by industrial progress in the fields of technology and organization. Wherever organizational skill has been combined with rapid technological improvement, productivity has gone forward by leaps and bounds, and unit costs have steadily fallen.

The basic method of constructing a house has changed little for literally hundreds of years. New features and materials, like sanitary plumbing and electric lighting, have been added from time to time. But the assemblage of materials, layer on layer, on the site of the house, by handicraftsmen working with primitive tools and in relative independence, has undergone virtually no change since the earliest periods for which we possess records.³⁰ The backwardness of the building industry is well described by R. Harold Denton, in a monograph prepared for the T. N. E. C. in the following words:

The building industry has not kept pace with other major industries in many important respects. It is only slightly mechanized; each group in the industry operates on the unsound doctrine that there is only a limited amount of work to be done, and each has imposed a variety of restrictions designed to protect its share of the work; the industry has refused to recognize methods of production management which have greatly increased productivity and reduced costs in the manufacturing industries; there is little standardization even of essential elements; each specialized group in the production of a house has set itself up as an independent business with practically no coordination or over-all management; the attitude of the public, of governing bodies, or architects, of labor, of real-estate boards, contractors, and materials manufacturers alike toward the production of housing has been rigidly bound to tradition; there has been practically no scientific laboratory research upon the house as a complete unit.³¹

Given these conditions, it is small wonder that the cost of constructing houses remains high. We need not look to artificially high wages and prices as the explanation. "The real problem is that of low productivity."³² By the same token, the real solution is to raise productivity.

Reduction of the Interest Rate.

Interest is an extremely important component of the annual cost of housing to the consumer. According to Stone, the annual cost of rental housing is divided somewhat as follows:³³

	<i>Percent</i>
Interest.....	30
Depreciation.....	20
Operation and maintenance.....	35
Taxes and assessments.....	15
Total.....	100

³⁰ For the history of building methods, see A. F. Bemis and John Burchard, *The Evolving House*, vol. I, Massachusetts Institute of Technology, Cambridge, 1933.

³¹ Temporary National Economic Committee Monograph No. 8, p. 133.

³² *Ibid.*, p. 130.

³³ *Ibid.*, p. 45.

Lower costs to the consumer may be achieved by a reduction in the total initial cost of the house, or by reducing any or all of the components of the total. It is apparent from the figures given above that a 50-percent reduction in the interest rate will be reflected in a 15-percent reduction in annual cost to the consumer.

Mortgage interest rates have declined substantially in the past 10 years. In 1931 the effective rate for building and loan associations was 8 percent. For Federal savings and loan associations this had fallen to 6.3 percent by 1936.³⁴ In 1939, John H. Fahey, Chairman of the Home Loan Bank Board, told the committee that, "The country over, rates on home mortgages are now ranging from 5 to 6 percent. In some cases they are as low as 4 and 4½ percent, while in some localities they run up to 6½ and 7 percent."³⁵ Some reductions in mortgage interest rates in sympathy with the general decline in interest rates would almost certainly have taken place in this period, apart from any policies pursued by Government. But there is little doubt that Federal action in the field of mortgage rates produced a sharper and more consistent movement than would otherwise have taken place. Stone goes so far as to assert that, "The substantial decline in effective interest rates between 1931 and the present time has been largely the result of various types of Federal intervention."³⁶ What policies did the Government pursue in order to bring about this result?

The Federal Home Loan Banks, founded in 1932, rediscount mortgages for all member institutions loaning on urban real estate.³⁷ These institutions exercise a general steadying influence on the mortgage lending business, though their direct effect on interest rates has probably been small.

The Federal savings and loan associations, first authorized in 1933, are local mutual thrift and home financing institutions. By 1939 the Federal Government had subscribed more than \$200,000,000 to their shares, and their assets amounted to almost 1.5 billion dollars.³⁸ The deposits of these Federal associations are insured by the Federal Savings and Loan Corporation (1934).³⁹ In this way some influence on mortgage interest rates was undoubtedly exerted.

The Home Owners' Loan Corporation was active in lending operations from 1933 to 1936. The H. O. L. C. was created to refinance existing mortgages on relatively liberal terms in the thousands of cases where owners were about to lose their homes through foreclosure at the bottom of the depression.⁴⁰ The effect on new mortgage rates was indirect, but probably important.

Finally, and most important, the Federal Housing Administration, created under the terms of the National Housing Act of 1934, insures mortgages in order to reduce the risk element in the cost of housing capital. Originally, insurance would be granted on mortgages up to \$16,000, on terms up to 20 years, in amounts not exceeding 80 percent of appraised value. An insurance charge of one-half of 1 percent was

³⁴ *Ibid.*, p. 83.

³⁵ Hearings before the Temporary National Economic Committee, Part 11, p. 5395. The figures presented above are admittedly no more than a rough indication of a general trend. As Mr. Fahey pointed out, "There is no up-to-date and dependable information as to interest rates being charged on home mortgages in all sections of the country" (*Ibid.*, p. 5396).

³⁶ Temporary National Economic Committee Monograph No. 8, p. 83.

³⁷ Hearings before the Temporary National Economic Committee, Part 11, pp. 5381-5382.

³⁸ *Ibid.*, pp. 5383-5384.

³⁹ *Ibid.*, p. 5385.

⁴⁰ *Ibid.*, p. 5385 ff.

made, and a maximum interest rate of 5 percent on the outstanding obligation was prescribed.⁴¹ Total cost to the borrower could therefore not exceed 5½ percent. Subsequently (1938), these terms were liberalized for housing costing less than \$6,000. The amortization period was extended to 25 years and the maximum loan increased to 90 percent of appraised value, while the insurance premium was cut to one-fourth of 1 percent.⁴² In 1939 the interest rate itself was decreased from 5 to 4½ percent.⁴³

In the field of rental housing the F. H. A. is empowered to insure loans to limited dividend corporations undertaking low-cost housing. Mortgages must not exceed 80 percent of valuation. Interest rates have been reduced from 5 to 4½ and then to 4 percent in an effort to reach reasonably low-income groups.

The F. H. A. has certainly played a very important role in the single-unit dwelling field. For example, in 1938 about 35 percent of all new one-family nonfarm homes were financed by the F. H. A. insured mortgages,⁴⁴ and it is clear that the influence of F. H. A. standards and rates has extended beyond the limits of its immediate activities. In general, the experience of the F. H. A. has shown conclusively that mortgage insurance is a thoroughly sound and workable method of reducing the cost of housing capital. Even though the risk of loss on F. H. A. mortgages is quite insignificant, lenders are still able to get 4½ percent on loans of this type. Municipal and utility bonds of comparable maturity, and certainly no greater safety, yield anywhere from 1 to 1½ percent less, while long-term Government bonds yield 2 to 2½ percent less. There seems to be no good reason for discrepancies of this magnitude. If F. H. A. insured mortgage rates could be lowered, it is not likely that lenders would refuse to accept lower rates, and the effect on private investment in residential construction would be altogether favorable.

GOVERNMENT INVESTMENT IN HOUSING

The production of houses has thus far been analyzed as though it were similar to the production of automobiles, radios, or some of the other durable consumers' goods. But the differences are quite as significant as the similarities. Many of the social evils of modern urban living are traceable, in whole or in part, to slum housing conditions. It has become increasingly clear that public action to eliminate these conditions springs not so much from humanitarian concern for the welfare of the slum-dwellers—though that is an important consideration—as from a desire to raise the level of social existence for the whole community.

History of Public Housing in the United States.

Though experiments in governmental aid to private housing activity in the United States date back to 1871⁴⁵ it was not until the World War that the Government actually undertook the direct construction of houses for rental purposes. The United States Housing Corporation, which was set up at that time as a special war measure, spent

⁴¹ Temporary National Economic Committee Monograph No. 8, p. 86.

⁴² *Ibid.*, p. 87.

⁴³ *Ibid.*, p. 88.

⁴⁴ *Ibid.*, p. 87.

⁴⁵ Temporary National Economic Committee Monograph No. 8, p. 111.

\$42,000,000 but retired from the field as soon as the war was over.⁴⁶

Not until 1933 did Government again enter the field of housing. Within the next few years four Government agencies, the Public Works Administration, the Resettlement Administration, the Federal Emergency Relief Administration, and the Farm Security Administration engaged in housing construction on a modest scale.⁴⁷

The total number of dwelling units erected under the auspices of these agencies to the end of the fiscal year 1939 amounted to less than 40,000, a mere drop in the bucket compared to the amount of private building even in those years of very restricted residential construction.⁴⁸

The first step toward the development of a planned program of Government investment in housing was taken with the passage of the United States Housing Act of 1937, which inaugurated a period of considerably increased activity. By the end of 1939 loan contracts amounting to nearly \$600,000,000 had been signed, which will eventually provide dwellings for some 160,000 families.⁴⁹ In contrast, Great Britain has engaged in public housing on a large scale ever since the last war. Under a plan very similar to that embodied in the United States Housing Act, some 1,100,000 dwellings have been built in England and Wales since 1919. This amounts to about one-third of all houses constructed during the period.⁵⁰ Adjusting for our larger population, a comparable figure for this country would have been more than 3,000,000 units, or about 150,000 per annum for the past 20 years, as against the actual total, both under construction and authorized, of little more than 200,000.

The United States Housing Authority.

The United States Housing Act established the United States Housing Authority, the basic functions of which were described to the committee by the Administrator, Nathan Straus, as follows:

The U. S. H. A. makes repayable loans to local public-housing agencies, called local housing authorities, to help them construct local low-rent housing projects and to clear slums. It makes annual grants-in-aid, annual contributions to help the locality bring rents on the completed projects within the financial reach of families in the lowest income group now living in slums or substandard housing. The U. S. H. A. cannot itself construct housing projects.⁵¹

The terms of the act tie the U. S. H. A. rigidly to slum-clearance activity, not indeed in the sense that new projects must be located on the site of cleared slums, but in the sense that for each dwelling unit constructed under U. S. H. A. auspices one substandard unit must be demolished or renovated by the local authority. In practice this severely limits the ability of the U. S. H. A. to aid in the construction of additional housing capacity.⁵²

The size of the annual contributions in aid of low rentals is determined by the general objective of reducing the full economic rent on the projects to what the U. S. H. A. calls the "social rent," in effect,

⁴⁶ *Ibid.*, p. 113.

⁴⁷ *Ibid.*, pp. 113-114. Total new nonfarm construction in the years 1933-39 amounted to 1,650,000 (*ibid.*, p. 23).

⁴⁸ *Ibid.*, pp. 113-116.

⁴⁹ *Ibid.*, p. 117.

⁵⁰ Hearings before the Temporary National Economic Committee, Part 11, p. 5429.

⁵¹ *Ibid.*, p. 5407.

⁵² It should be noted, however, that under the terms of recent defense legislation the U. S. H. A. is authorized to meet emergency housing needs growing out of the defense program, and that in connection with this work there are no slum-clearance or equivalent demolition provisions. How important this will be remains to be seen.

what prospective low-income tenants pay for their present substandard dwellings.⁵³

The U. S. H. A. operates as a banker for local housing authorities. In this capacity it borrows from the public on its own Treasury-guaranteed debentures, and lends up to 90 percent of the project cost to the local authority at the current Federal interest rate, plus one-half of 1 percent. The local authority must raise at least the remaining 10 percent from other sources. Loans to the local authorities are repayable in 60 years, the period during which the projects are expected to be occupied. So far the U. S. H. A. has been borrowing at a little under 1½ percent and lending at 3 percent, thus earning a profit on its banking operations. This banking profit is lowered to the extent that the project is financed from sources other than U. S. H. A. loans.

The U. S. H. A. also acts as the agency of the Federal Government in fixing and disbursing annual contributions in aid of low rentals. Such contributions may not exceed the current Federal interest rate, plus 1 percent, on the project costs. To date this has meant that the maximum allowable contribution has averaged about 3½ percent. In order to insure local cooperation, localities are obliged to make annual contributions, usually in the form of tax abatement, equal to at least 20 percent of the Federal contribution. Actually Straus testified that to date local contributions have averaged about half the Federal contributions.⁵⁴

Up to June 1939 the U. S. H. A. had found it necessary to make the maximum contribution allowed, 3½ percent, in order to bring rentals within reach of families with incomes under \$1,000.⁵⁵ Since that time "the annual contributions now being approved have been reduced to an average of about 2.8 percent, and in some cases only 2¼ to 2½ percent, of the total cost of the projects" due to "carefully planned economies in operation and management."⁵⁶

It should be noted that the net cost to the Federal Government involved in the U. S. H. A. program is measured not by the amount of the annual contributions, but rather by this amount less the profit which the U. S. H. A. makes on its banking operations. Under the most favorable circumstances, assuming that the U. S. H. A. lends money for 90 percent of the initial outlay and the annual contribution is 2.8 percent, the cost to the Federal Government works out at approximately 1½ percent.⁵⁷ This is almost exactly equal to the interest rate paid by the U. S. H. A. for its funds. This is the whole amount of burden on the Federal Treasury.

At the present time costs to the Federal Government are likely to rise above this level only to the extent that the U. S. H. A. lends less than 90 percent of the initial outlay, for this reduces the U. S. H. A.'s banking profit and hence increases the net burden of the annual contribution.

As to the burden assumed by local treasuries in supporting the housing program, this is much more apparent than real, even in a strictly financial sense. It has already been pointed out that local contribu-

⁵³ Hearings before the Temporary National Economic Committee, Part 11, p. 5414.

⁵⁴ *Ibid.*, pp. 5415-5416.

⁵⁵ *Ibid.*, p. 5415.

⁵⁶ U. S. H. A., What Does the Housing Program Cost? March 1940, pp. 3, 4.

⁵⁷ The U. S. H. A. lends the local authority 90 percent of the cost at 3 percent. For these funds it pays about 1.5 percent. Hence its interest profit is 1.35 percent of the total cost. This must be deducted from the contribution of 2.8 percent, leaving a net cost of 1.45 percent.

tions take the form of tax exemption. Usually, however, the direct financial sacrifice is much less than the theoretical tax loss, since delinquencies are high and collections difficult in the case of run-down slum property of the type frequently involved in U. S. H. A. projects. The replacement of slums by decent well laid-out houses reduces crime, disease, fires, and juvenile delinquency, and hence makes possible a cut in the city budget. The scientific study of urban problems in recent years has shown what a terrible social and financial liability slums are;⁵⁸ their elimination, therefore, undoubtedly involves actual financial savings of a substantial sort. Also, a housing project invariably raises the value of adjacent real estate, and hence indirectly creates new sources of tax revenue; and, finally, at least during the period of construction, the added employment caused by a project means lower relief and welfare costs.

It is almost impossible to measure the exact size of these financial offsets to the contribution of the locality, and there is considerable variation from project to project. But it seems safe to assume that on the average the net financial cost to the localities is negligible. Hence the only financial burden imposed upon taxpayers by the U. S. H. A. program is the net cost to the Federal Government—in other words, the difference between the annual Federal contribution and the U. S. H. A.'s banking profit.

In the spring of 1940, U. S. H. A. authorizations for annual rent subsidies totaled nearly \$700,000,000,⁵⁹ which, with present techniques and building costs will eventually construct more than 160,000 dwelling units for families in the lowest income group.⁶⁰ The U. S. H. A. calculates that the probable annual net cost of this program will be \$13,400,000, or just under 2 percent of the total capital outlay.⁶¹

This net cost figure will probably be reduced in future expansions of the program. Steady progress, according to Straus, has been made in the direction of lower construction costs. "We are learning how to build cheaper and plan more economically on every project," he told the committee, "and I believe it is reasonable to assume that the amount of our annual contributions will tend to decrease."⁶² On the other hand, Mr. Straus also expects the projects to secure a larger share of their capital from local sources in the future; if so, this will reduce the U. S. H. A.'s banking profit and hence raise the net cost to the Federal Government. This would appear to be an undesirable development which could be prevented either by a change in policy or by a slight change in the United States Housing Act.

Expanding the United States Housing Authority Program.

As already indicated, the U. S. H. A. is designed to provide housing for really low-income families. The lowest income reached is between \$400 and \$500; and tenants are limited to families with maximum incomes ranging from \$612 from the smallest-size families in Austin, Tex., to \$1,399 per annum in New York City.⁶³ In almost every project the average income of those housed is less than \$1,000.⁶⁴

⁵⁸ See, e. g., Boston City Planning Board, Report on Income and Cost Survey of Boston, 1935.

⁵⁹ Temporary National Economic Committee Monograph No. 8, p. 117.

⁶⁰ Idem.

⁶¹ U. S. H. A., What Does the Housing Program Cost? p. 6.

⁶² Hearings before the Temporary National Economic Committee, Part 11, p. 5415.

⁶³ Temporary National Economic Committee Monograph No. 8, p. 117.

⁶⁴ Hearings before the Temporary National Economic Committee, Part 11, p. 5428.

Since private building for families with incomes under \$1,000 is virtually nonexistent,⁶⁵ an important source of new houses for this group is the U. S. H. A. program. However, the magnitude of the housing problem for this income class is so great that the present U. S. H. A. program is not sufficient for its solution.

There are more than 8,000,000 nonfarm families with incomes under \$1,000. It may be taken for granted that an overwhelmingly large percentage of our 4,000,000 substandard houses are inhabited by families falling in this category. It follows that the potential field for U. S. H. A. activities is enormous. Some of the substandard dwellings, however, will be replaced by relatively serviceable hand-downs from higher income groups. Even so there is a genuine social need for more than 3,000,000 new units suitable for occupancy by families with incomes under \$1,000. If it is assumed that these new units should be provided over a period of 20 years, the U. S. H. A. program would have to be stepped up to an annual rate of 150,000 new units per annum.

An expansion of the U. S. H. A. program in the manner indicated would in no sense constitute a threat to the private building industry, which does not provide for the lowest income group. On the contrary, it would stimulate private building, through absorbing more than \$600,000,000 annually of what might otherwise be idle savings, and in this way lifting the level of employment and national income.

The annual cost to the Federal Government of constructing 3,000,000 new U. S. H. A. units over a 20-year period would gradually amount to a maximum of about \$250,000,000, and the average for the next 2 decades would be \$125,000,000. These figures are based on the assumption that the net cost for every 150,000 units is approximately \$13,000,000 per annum. To the extent that construction costs can be brought down in the future the burden on the Treasury would be correspondingly reduced.

⁶⁵ See above, p. 286.

CHAPTER XIV

SMALL BUSINESS¹

The problems of small business are in part those of all business, and center on the need for a larger market. All firms face questions affecting income and mortality in periods when national income as a whole is low. There are, however, several problems which must be faced primarily by small firms and for which small firms have sought their own solution. It is to these that attention is directed in this chapter.

NUMBER OF SMALL ENTERPRISES

Satisfactory figures on the total number of business establishments in the United States are not available. It is estimated that there are roughly 2,400,000 separate units, or about 16 firms for each 1,000 persons.²

Of the total, more than 92 percent are "small" (with less than \$250,000 in total assets), and about 7 percent are intermediate (with \$250,000 to \$5,000,000 in total assets). Only about 1 percent of the business population has assets over \$5,000,000. Arthur Whiteside, president of Dun & Bradstreet, estimates that 1,680,000 concerns have a net worth under \$120,000.³ Excluding banks, insurance companies, and service concerns not seeking credit, 30 percent of all commercial units have an investment of \$500 or less; 48 percent have between \$500 and \$10,000; 21 percent have more than \$10,000.

There are a number of parttime and marginal enterprises which bulk large in the economy, although there are no comprehensive data concerning them. The many homes in which a room or so is rented; the small lumbering, gravel-mining, produce-vending, and other sidelines of farmers; the work of the occasional or parttime dressmaker, carpenter; the talent or "hobby" of an otherwise employed individual which results in commercial production—all these activities are important to the dynamics of the national economy. The small personal operation may be embryonic of a larger business growth. This indeterminate area shades over into the group of small, but clearly established business units which are operated by their proprietors and their families. The Census of Business gives the number of units of this kind as between 800,000 and 900,000.

According to records of the Social Security Board there were, in the first quarter of 1938, about 1,500,000 employing units engaged

¹ This chapter was written by William B. Saunders, economic analyst, Department of Commerce, assisted by H. H. Wein. It was reviewed and criticized by Dr. Theodore J. Kreps, professor of business economics, Graduate School of Business, Stanford University, and John Cover, National Resources Planning Board.

² See Temporary National Economic Committee Monograph No. 17, *Problems of Small Business*, ch. XVIII.

³ Hearings before the Temporary National Economic Committee, Part 9, *Savings and Investment*, p. 3873.

in "business" (as covered by the act). There were also some 300,000 financial, professional, and other "nonbusiness" units. Of the total 1,800,000 enrolled employing concerns, 123,000, or 6.8 percent, were only occasional employers, having reported some wages paid during the first quarter of 1938, but employing no workers at the end of the quarter. This measure does not truly reflect the volume of business and also tends to overstate the size of enterprise progressively as actual size decreases; it is, however, a rough guide to the size distribution of firms. Small firms (with less than 20 workers) constituted 92.5 percent of the total and employed 25.2 percent of the covered workers. Intermediate firms (with from 20 to 800 workers) comprised 7.4 percent of the total, but employed 44.1 percent of the workers. The large firms, with only 0.1 percent of the total organizations, nevertheless employed 30.7 percent of the total number of workers.⁴ The conclusion is inescapable that the vast majority of firms are small.

Manufacturing.

In the field of manufacturing, the great multiplicity of small business units is confirmed by an additional measure of size—the value of annual product. In 1937 of 167,000 establishments covered by the Census of Manufactures, only 1,653 (1 percent of the total) produced \$5,000,000 or more in value of product. Some 30,000 concerns (of intermediate size) had product values between \$250,000 and \$5,000,000, and 135,000 may be classed as small, having less than \$250,000 annual product. In this group, representing 81.1 percent of all covered establishments, those producing less than \$5,000 annually are not covered.

Similar results are obtained from analysis of Statistics of Income, which refer only to corporate business. In 1936, there were 85,000 manufacturing corporations filing returns with the Bureau of Internal Revenue. Small firms (assets under \$250,000) numbered 69,000, or 80.6 percent of the total, but held only 6 percent of the capital assets and made 14 percent of the gross sales.

If manufacturing is broken down into its component subdivisions, the percentages of smaller units are found to vary considerably. Small business in 1936 ranged from 92 percent of total corporations in the clothing and apparel industry, and 89.4 percent in the printing and publishing industry, to 66.3 percent of the corporations in paper and pulp production, and 63.2 percent in petroleum and oil production.

Trade.

Of the 2,400,000 business establishments in this country, considerably more than half are engaged in trade. Despite the severity of large-unit competition, trade is still numerically the chief stronghold of small business. Among the corporate establishments reporting to the Bureau of Internal Revenue in 1936, 121,000, or 93 percent of the total, were in the category with assets under \$250,000; this group had 29 percent of the capital assets and 39 percent of the gross sales.

⁴ Social Security Board tabulation, cited in Temporary National Economic Committee Monograph No. 17, table 3, p. 285.

There is a statistical bias in the corporate data in favor of large units, which tends to underrepresent considerably the role of small business since most unincorporated trade units are small. The Census of Business for 1935 states that there were 1,650,000 retail and 177,000 wholesale trade units, whereas the total number of trade corporations was only 130,000. Since the Social Security Board reports that in 1938 there were only 398,000 retail establishments in the employing trade group, there must therefore be a very large number of trade establishments so small as to hire no workers.

Service.

The second largest stronghold of small business is the service field—including amusements, hotels, restaurants, cleaning establishments, the personal services, and other noncommodity enterprises. The statistics of income for 1936 show that, of 49,000 service corporations, 41,000, or 84.8 percent of the total, were in the small business class; this group had only 17 percent of the total plant investments but 45 percent of the gross sales.

Here too most establishments are unincorporated. Thus the Census of Business figures give the total number of service units in 1935 as 616,000 contrasted with the corporate total of 49,000 in 1936. The number of nonemploying units is considerably less than in trade, as the Social Security Board reports some 418,000 service establishments with employees in 1938. A considerable number of the remainder were proprietor-manned.

Construction.

While the building supply industries, classed as manufacturing, include many firms of large size, construction itself is predominantly a small business industry. Even among the 15,000 incorporated units, there were in 1936 only 31 construction corporations that could be called large. At the other extreme, 13,500, or 92.5 percent, were units having less than \$250,000 in total assets; these had 32 percent of the capital assets and 64 percent of the gross sales.

In 1938, the Social Security Board found that there were 99,000 employing units in this industry, which, compared with the 15,000 corporations, indicates an overwhelming preponderance of unincorporated units in construction.

Mining and Quarrying.

In 1936, 8,555 mining and quarrying corporations out of a total of 11,531 reporting to the Treasury fell into the small business category. Although they formed 74 percent of the total number, their gross sales were only 8 percent of the total, as compared with 275 large corporations accounting for 57 percent of gross sales.

Mining has largely become a deeprock operation requiring large capital and costly smelting equipment. Quarrying, however, is a surface operation successfully carried on by the smaller units.

FACTORS AFFECTING NUMBERS IN VARIOUS GROUPS

Small business is, in general, to be found wherever the capital requirement for moderately efficient operation is small, wherever small-unit machinery or other equipment is as efficient as the large and costly plant, wherever the preference of consumers favors a distinc-

tive product or service involving direct intimate response in other ways to the varieties of consumer demands.

In retail trade, the required capital is relatively small, the amount of mechanization is slight. In the service field, by and large, individual skill and personality are basic to success. Construction similarly calls for an almost endless variety of performance. The technical problems encountered are highly varied and resist standardization of method. Construction equipment is largely of portable nature, requiring a relatively small outlay of capital, and involving no very heavy fixed charges when not in use.

The proportion of small firms in manufacturing varies greatly among industries. The machinery used in garment-making, printing, planing, leather-working, and other groups in which the smaller units are strongest, is of the type which is virtually as efficient in small or medium-sized shops as in large factories. For example, the large printing plant merely has more linotypes, not better linotypes, than has the small plant. Small enterprise is often found in industries where the ratio of machine production to manpower is relatively low. Thus, not only may the investment necessary for efficiency of plant be relatively small, but the small units may have an efficient technological base.

Practically all large business is in corporate form. Moreover, the corporate segment of small business enterprise is, on the whole, larger and stronger than noncorporate small business. Consequently, the difficulties of small business are not exaggerated when, as appears later, a comparison of the relative financial and economic position of large and small businesses is made on the basis of the corporate segments of each.

Small enterprise, while traditionally considered to be in competition with large enterprise, is in many instances supplementary to it and dependent upon it. Many small firms perform functions without which the large ones would find it difficult to exist. In manufacturing, the large central enterprises rely heavily upon the smaller independent units for secondary and tertiary processings, which translate much of semifinished production into consumer goods. In other instances, such as in the automobile industry, small enterprises, such as the producers of accessories, provide highly specialized parts for the output of the large firm. Such specialization brings with it interdependence and the possibility of abuse of economic power.

ECONOMIC PROBLEMS

Effects of Structural Changes in the Economy.

The structural changes that have taken place since the beginning of the industrial revolution in manufacturing are sufficiently familiar to warrant being left unmentioned. Economic literature has for a long time featured the economics of large-scale production and, in some cases, of multiproduct, multiplant consolidations.

But in recent years the pressure on the small firm has spread to other areas. Since the field of marketing is such an important habitat for small business, the recent struggle for marketing control provides an excellent illustration in point. Mass production has greatly increased the importance of manufacturers and lessened their dependence on wholesalers for capital. They developed their own brands and

packaging only to find wholesalers resisting pressure to add new items. Seeking increased profit through larger volume and lower costs, the manufacturer turned from the wholesaler to other channels or sought means of compelling cooperation from wholesalers.

At the same time, a new crop of retailers appeared. Having failed to secure adequate concessions from wholesalers, and believing lower prices a key to larger volume and greater profits, they bought directly from manufacturers and sought clientele by lower prices and reduced services. The department store was followed by the mail-order houses and the chains; more recently, supermarkets have appeared in the competition for control of the market.

Manufacturers found convenient weapons in product differentiation, packaging, labeling, and especially in Nation-wide advertising. They built up in the consumer's mind recognition, acceptance, and even insistence upon a particular product and thus forced wholesalers and retailers, through the consumer, to carry the item. As a counter-offensive, wholesalers and large retailers adopted private brands. Wholesalers also sought closer cooperation with independent retailers by building up "voluntary chains", which strengthened the independents and indirectly bolstered up the wholesalers.

As the manufacturing establishments increased in size and strength, they exerted more and more control over the channels of distribution. In most lines of merchandising, wholesalers lost business to direct distribution. On the other hand, large-scale retailing became a more powerful factor. The rise of supermarkets and the tendency toward larger stores mean increased problems for the small independent.

Faced with these structural changes in the marketing system, independent retailing has had two developments. First is the cooperative chain movement, or distributive cooperation, offering the advantages of corporate chains with a substantial measure of independent autonomy. Second is the rapid appearance of neighborhood shopping centers containing independent drug stores, bakeries, etc. Thus the small enterpriser is facing a more intense struggle even in his innermost stronghold.

Increasingly rapid and more numerous structural changes in the economy, making for greater knowledge on the part of the consumer as well as for standardization of products, have made it increasingly necessary for the small enterpriser to bring his merchandising skill and technical service in line with the best but have also facilitated the invasion of his business territory by large enterprise.

Economic Position.

Business failure is an ever present spectacle. Even in the prosperous year 1929, there were 22,909 commercial and industrial failures with total current liabilities of \$483,000,000.⁵ In 1932 the number had increased to 31,882 with \$928,000,000 in current liabilities. In recent years, the number has been greatly diminished; thus in 1937 only 9,490 failures were recorded with total current liabilities of \$183,000,000, or slightly more than a third of 1929 levels.

Of those who failed in 1937, over 5,400 (liabilities, \$47,000,000) were retailers. An additional 1,000 (liabilities, \$21,000,000) were wholesalers. Failures among manufacturing concerns numbered less than

⁵ See Temporary National Economic Committee Monograph No. 17, Part I.

2,000 but liabilities totaled \$92,000,000. The number of failures in the construction industry was 584 with liabilities of \$11,600,000, whereas in commercial service 483 concerns failed, with liabilities of \$11,800,000.

In a study of Births and Deaths of Retail Stores in Indiana, 1929-37,⁶ it was found that—

out of a total of 10,430 stores in business at the end of 1929 and 13,585 starting during the next 8 years, disappearances aggregated 14,509 or 139 percent of the number of stores operating at the end of 1929. Since the actual number of closings exceeded openings by 924, there were 9 percent fewer retail outlets in 1937 than in 1929. * * *

In general, the lines with the smallest capital investment might be expected to have the highest turn-over, since the ease with which a person may enter an unregulated business is determined in large part by the capital necessary to start the business.

About 54 percent of the disappearances were registered in the class with less than \$2,000 in net worth; another 24 percent were in the \$2,000 to \$20,000 grouping.

Moreover, 90 percent of the manufacturing concerns failing in the period 1935-39 had liabilities under \$100,000.⁷ In wholesale trade, this proportion was 97 percent and in retail trade 99 percent. Moreover, in each group, at least three-fourths had liabilities under \$25,000. It is clear that small firms are most susceptible to failure.

Earnings.—Small firms have the most unstable earnings, and in depression years the lowest. Thus, although the relative number of corporations in the class with assets under \$50,000 increased 7 percent between 1931 and 1936, they formed a decreasing proportion of the profitable firms and a sharply increased proportion of the unprofitable companies. The facts are shown in table 61.

TABLE 61.—*Ratio of compiled net profit (after tax) to net worth (average equity), manufacturing industries, average 1931-36*

Size of asset class (\$1,000)	Ratio ¹ (in percent)	Size of asset class (\$1,000)	Ratio ¹ (in percent)
0 to 50.....	(17.2)	1,000 to 5,000.....	1.6
50 to 100.....	(5.2)	5,000 to 10,000.....	2.4
100 to 250.....	(2.4)	10,000 to 50,000.....	2.5
250 to 500.....	(.3)	50,000 and over.....	3.6
500 to 1,000.....	.8		

¹ Ratios in parentheses are deficits to net worth.

Source: Temporary National Economic Committee Monograph No. 17, *Problems of Small Business*, ch. XVIII (based on Treasury data).

The smallest size class shows the greatest average loss, the largest size class the greatest profit. These ratios represent aggregate results. A more detailed break-down reveals that small manufacturing corporations which report a net income tend to earn more on net worth than the larger ones.

This tabulation, however, covers both profitable and unprofitable corporations. Dr. Crum's recent study of returns on invested capital earned by groups of companies of various sizes shows that when only profitable corporations are analyzed, the highest rates of return on invested capital are earned by the smallest corporations.⁸

⁶ Dun's Review, January 1940.

⁷ Dun's Statistical Review, February 1939.

⁸ W. L. Crum, *Corporate Size and Earning Power*, Harvard University Press, Cambridge, 1939, cited in Temporary National Economic Committee Monograph No. 13, *Relative Efficiency of Large, Medium-Sized, and Small Business*, p. 13.

Debt.—Small firms tend to struggle with relatively larger burdens of debt. The larger corporations get a larger proportion of their capital from stockholders and a smaller proportion from lenders, with less of it demand money. In manufacturing as a whole, about 80 percent of the borrowed capital of the smallest corporations is subject to the demand of creditors; in the largest class only about 50 percent of the borrowed capital is callable.

In the smallest class of corporations in 1936, debt was equal to 47 percent of total assets; in the largest, about 20 percent.

Working capital.—One of the key factors in carrying on business is adequate working capital. Table 62 shows that the large firms are much better able to maintain working capital than the small firms, perhaps in part because the latter are compelled to pay interest and principal of their demand obligations.

TABLE 62.—Aggregate volume of working capital in manufacturing industries, 1926-38

Year	Manufacturing corporation submitting balance sheets (\$000,000)	Large corporations	Small corporations	Proportion of large companies share to total	Index: 1929=100	
					Large corporations	Small corporations
1926	18,985	6,696	12,289	35.3	83.3	97.9
1927	19,042	6,859	12,183	35.0	85.3	97.1
1928	20,142	7,450	12,692	37.0	92.7	101.1
1929	20,588	8,037	12,551	39.0	100.0	100.0
1930	18,794	7,618	11,176	40.5	94.8	89.0
1931	16,010	6,916	9,094	43.2	86.1	72.5
1932	13,562	6,021	7,541	44.4	74.9	60.1
1933	14,192	6,132	8,060	43.2	76.3	64.2
1934	13,641	6,187	7,454	45.4	77.0	59.4
1935	14,086	6,502	7,584	46.2	80.9	60.4
1936	15,138	6,793	8,345	44.9	84.5	66.5
1937		7,002			87.1	
1938		7,356			91.5	

Source: Compiled by Donald Woodward of Moody's Investors Service, based on reports to the Bureau of Internal Revenue. The "large corporations" are 316 in number, specially tabulated by Moody's, with assets ranging upward from \$3,000,000. The working capital for the smaller corporations is the difference between the total working capital of all manufacturing corporations submitting balance sheets and that of the 316 large corporations.

Moreover the proportion of working capital held by the 316 large corporations rose almost without interruption from 35 percent of the total in 1926 to 45 percent in 1936. During the depression the smaller corporations lost as much as 40 percent of their working capital by 1932 and regained only 7 percent by 1936; the large corporations lost 25 percent and regained 10 percent.

Inadequate working capital is often defined in terms of a low ratio of current assets to current liabilities. A ratio of two to one is a rule-of-thumb measure of soundness since sufficient funds are available to meet current obligations even if the current assets shrink by one-half or are converted into cash half as rapidly as anticipated. Ratios in excess of two to one are favorable, those below unfavorable.

In table 63 note that the larger the corporation, the higher the ratio. Moreover, only the corporations with assets of \$50,000,000 or over, enjoyed a stronger cash and current assets position in 1936 than in 1931. Those with assets under \$250,000 were uniformly in a weak and unsound position.

TABLE 63.—Ratio of current assets to current liabilities according to asset sizes, 1931-36

[All corporations submitting balance sheets]

Asset class (\$000)	1931	1932	1933	1934	1935	1936
0 to 50.....	1.45	1.38	1.41	1.34	1.33	1.33
50 to 100.....	1.67	1.59	1.74	1.65	1.64	1.62
100 to 250.....	1.99	1.99	2.01	1.91	1.95	1.86
250 to 500.....	2.45	2.44	2.49	2.29	2.41	2.37
500 to 1,000.....	2.92	2.94	2.96	2.52	2.65	2.79
1,000 to 5,000.....	3.71	3.79	3.70	2.78	3.06	3.47
5,000 to 10,000.....	4.44	4.29	4.22	2.94	3.41	3.83
10,000 to 50,000.....	4.62	4.83	4.91	3.29	3.74	4.45
50,000 and over.....	5.45	5.42	6.06	5.91	7.26	7.26

Source: Statistics of Income, cited in Temporary National Economic Committee Monograph No. 17, ch. XVIII.

Equity.—The proportion of the business owned by the owner is an important measure of strength. In general, as is evident from table 64 the smaller the firm, the greater the tendency to operate "on a shoe-string."

TABLE 64.—Ratio of equity¹ to total assets for all manufacturing corporations, 1932 and 1936

[All ratios in percent]

Assets (\$000)	Returns with net income		Returns with no net income	
	1932	1936	1932	1936
Less than 50.....	67.5	58.1	49.2	33.8
50 to 100.....	72.4	64.0	60.2	45.8
100 to 250.....	77.1	67.4	65.3	51.4
250 to 500.....	80.0	71.0	70.3	54.2
500 to 1,000.....	82.4	73.2	73.6	53.6
1,000 to 5,000.....	83.5	75.6	75.9	57.3
5,000 to 10,000.....	84.6	74.0	73.6	58.2
10,000 to 50,000.....	81.5	75.6	75.0	53.1
50,000 and over.....	79.4	77.0	71.4	42.0

¹ Computed as the value of preferred and common stock, plus surplus and undivided profits, minus the deficit.

Source: Statistics of Income.

The importance of inadequate capital as a factor in business failures should be reemphasized. In the period from 1890 to 1931, Dun & Bradstreet estimate that this alone caused 31 percent of all failures. In a study of three Minnesota communities,⁹ almost 51 percent of the manufacturers had a net worth of less than \$2,000 or practically no investment at all. Similar results have been obtained from other studies of business mortality.¹⁰

Sales.—In 1935, according to the Census of Business, there were 6,079 chains in retail trade operating 127,482 stores and about 1,450,000 independents with some 1,480,000 stores. The gross sales per chain in 1935 were \$1,242,000. The gross sales per independent were \$16,750, but almost one-half of these independents had sales below \$5,000 per year.

⁹ E. A. Heilman, *Mortality of Business Firms in Minneapolis, St. Paul, and Duluth, 1926-30*, University of Minnesota Press, 1933; see Temporary National Economic Committee Monograph No. 17, Part I.¹⁰ See Temporary National Economic Committee Monograph No. 17, Part I.

Since 1929, the independents have lost part of the market to chains and other types of retail units. The independents' share of gross sales had decreased by 4.4 percent in 1935, while the number of stores they operated remained constant. The chains, on the other hand, increased their sales by 2.8 percent while the number of stores decreased by 1.9 percent.

The position of small business in the service trades is analogous to that of small business in retailing. Most of them are small businesses, about one-third being operated solely by their proprietors and members of their families, since the volume of their receipts does not justify the employment of paid personnel.¹¹

Of the total number of establishments covered by the Census in 1935, 203,000 or 35.3 percent, reported receipts per establishment of less than \$1,000. An additional 227,000 firms, or 39.5 percent of the total, had receipts between \$1,000 and \$3,000. These two groups represent 75 percent of the service establishments but they account for only 24 percent of the total receipts. The large businesses in this field—those with receipts in excess of \$50,000—had 23 percent of total receipts and numbered 996, or 0.2 percent of the total number of proprietors.

In the field of manufacturing, data are available only for corporations. These show that, at one extreme, 51 percent of the firms made 4 percent of the sales, and, at the other extreme, 0.8 percent made 45 percent of the sales.¹²

CREDIT AND CAPITAL PROBLEMS

The Commercial Bank as a Source of Credit.

Traditionally, the commercial bank has been a major source of credit for local enterprise. The local bank was completely integrated into the life of its community; its management and ownership were in local hands; the business potentialities of its borrowers were matters of intimate knowledge.

Customarily, credit was extended on the basis of two kinds of collateral security: (1) Short-term promissory notes, and (2) short-term mortgages on real property. In many cases local moneyed citizens endorsed the paper of borrowers. During periods of relative stability this method was, on the whole, adequate for those small businesses having normal banking connections.

With the advent of the depression of the thirties, this procedure broke down.¹³ Many local banks were seriously weakened. Potential outside lenders were generally unable to evaluate the worth of local loans. Realization on such loans was difficult since their value depended primarily upon the continuance of the borrowers as going concerns. In the case of mortgages on small industrial firms, the special purpose value of the underlying physical assets created difficulties; in the case of pledged securities of local concerns, there was no marketability.

The growth in the average size of the commercial bank, the spread of branch banking, and the closing of the doors of thousands of

¹¹ Ibid., ch. XVIII.

¹² U. S. Treasury Department, Statistics of Income.

¹³ See Temporary National Economic Committee Monograph No. 17, Part III.

small unit banks, has resulted in a situation where bank officials no longer have the same intimate knowledge of local management as formerly. The new type of banking personnel is disposed to pay more attention to the static elements of assets and liquidity than to the dynamic factors of growth and expansion.

There are a number of legal and practical considerations which limit the acceptability of both inventories and receivables. In a review of rejected R. F. C. applications conducted by the Department of Commerce, it was pointed out that—

In order that chattel mortgages on inventories may provide a practicable security, they should (1) permit the sale of goods in the usual course of trade, and (2) cover goods acquired to replenish stock that is sold. According to a survey made by the Legal Division of the Reconstruction Finance Corporation, however, there are only eight States where such security is acceptable from a practicable point of view. In nine States a chattel mortgage covering a fluctuating stock of goods exposed for sale is absolutely invalid, and in all the others, including the District of Columbia, the steps necessary in order to maintain a valid and effective lien are too complicated (or too uncertain) to be practicable. In all States except the eight first referred to, a chattel mortgage on inventories does not constitute satisfactory collateral unless the goods are warehoused. The latter requirement would probably make it impossible for retail businesses to continue operations in the majority of cases.

As already indicated, accounts receivable are, in general, acceptable as security by the Reconstruction Finance Corporation except where they are composed of so many small or delinquent items that administrative costs would be prohibitive or recoveries doubtful. Unfortunately, the latter conditions obtain with respect to many small retail businesses desiring credit.¹⁴

While the collateral position of the small manufacturing concern is bad, the position of the small wholesaler or retailer is worse. The latter have most of their assets in the form of inventories and receivables, and only a small portion in mortgageable plant or equipment. The emphasis on liquidity and negotiability of collateral thus restricts the potential volume of credit.

In the past banks have financed the purchase of fixed assets and working capital, with full realization that so long as the business remains a "going concern" inventories are sold and accounts are collected frequently. In short, money comes in just as in the case of a true commercial loan ("one turnover"). However, the money cannot be used to repay a working-capital loan without restricting business operations. It was common practice to allow such loans to run on for several years, so long as the interest was paid and the principal gradually reduced. The present difficulty arises out of the nature of these working-capital loans, which, while ostensibly short-time, are in reality long-run advances by the banks.

Small businessmen epitomize the situation by saying, "If your business is in shape to get a bank loan, it doesn't need one." To this the banker counters with the statement that "No sound business is ever refused credit."

Trade Credit.

Probably the most important type of nonbank credit to small firms is trade credit, or credit stemming from goods bought for resale and inventory, and from the purchase of equipment.¹⁵ It is both short- and long-term. The dominant form is the short-term trade credit

¹⁴ Cited in Hearings on S. 1482 (Mead bill), 76th Cong., 3d sess., p. 413.

¹⁵ Temporary National Economic Committee Monograph No. 17, Part III.

which provides working capital, though there seems to be a trend toward financing investment goods.

The weaker the financial position of a firm, the greater is its dependence on trade credit. Firms which can pay cash are in a position to bargain for price and quality concessions. Those who must depend on trade credit can buy only where credit is available. They are tied to the suppliers to whom they are already indebted unless they can pay their debts. In hard times they are faced with the prospect that their suppliers may lose "confidence" and press for immediate payment of both interest and principal, compelling them to throw their stocks on the market at sacrifice prices. Firms which must depend on trade credit are essentially outlets or appendages of the large suppliers.

Accounts Financing Companies.

Today the accounts-receivable finance companies support the purchase of virtually every type of consumer durable goods. At the end of 1923, these agencies held receivables of \$356,000,000, largely automobile paper; at the end of 1929, the amount held had increased to \$1,373,000,000. After a depression decline, the volume swelled to \$2,173,000,000 in 1937.¹⁶

These companies play an important role in the financing of small business. They purchase certain customer accounts of their clients, although the customer is generally unaware that his debt has, in reality, been transferred. Repayments by the customer are forwarded to the finance company. Generally the company advances from 60 to 80 percent of the face value of all assigned accounts. Customers, of course, pay the full amount, the excess being retained by the finance company. From this excess, deductions are made for losses on the uncollectible accounts, interest, service charges, additional interest on unpaid accounts, bonding fees, flat annual charges, fees for "business advice," etc.; any remaining balance is credited to the client.

Other Credit Sources.

Among other credit sources open to small business, the factor is most important.¹⁷ His function is distinct from that of the finance company in that he determines who shall get credit, not the dealer or seller. Consequently, he develops a credit-rating system for the client's prospective customers.

Factoring tends to shorten the periods during which credit is outstanding because of the flat fee charged—generally 1 or 2 percent on the receivables purchased. Since a 1 percent fee with a turnover of 30 days nets the factor only half as much as the same fee with a 15-day turnover, it is to his advantage to shorten the credit period.

In addition to these sources of credit, small business has resorted to the personal loan company, the personal loan departments of banks, private lenders, credit unions. In general, these "retailers of credit" attract equity capital and can tap the credit of banks and the capital market because of their ability to organize a great number of small transactions into aggregates. To an increasing degree small business is turning to the specialized agencies—finance companies, factors, and accounts-financing companies. The cost of such credit is far in excess

¹⁶ Rolf Nugent, *Consumer Credit and Economic Stability*, Russell Sage Foundation, New York, 1939, p. 80.

¹⁷ See Temporary National Economic Committee Monograph No. 17, Part III.

of the cost of bank credit. Since this field is largely unregulated, practices vary widely, abuses exist, and the small business utilizing these media is definitely at a disadvantage.

Sources of Capital.

The major source of equity investments in small enterprise has always been the wealthy individual familiar with the business, its management, and the locality in which it operated. Investment banking has played almost no part in the financing of small business. The underwriting and marketing of securities—the traditional business of investment banking—is geared almost exclusively to the requirements of large enterprise. The vast majority of small firms are unincorporated; consequently only a very small segment at best can avail itself of investment banking machinery.

The statistics of the Securities and Exchange Commission illustrate the limitations on effective utilization of the capital markets. Among registered issues with expected proceeds of less than \$1,000,000, the cost of flotation amounts to about 20 percent of the proceeds for common stocks, about 16 percent for preferred stocks, and about 7 percent for bonds. Between 80 and 90 percent of the cost of such stock issues and about 70 percent of the flotation cost of bonds represents compensation paid for underwriting and distribution.¹⁸

Even if the small firm is willing to stand the cost, it finds that its issues have few purchasers. Most large issues sell 100 percent of the registered amounts offered. However, in a survey of sales by small and unseasoned companies, a considerably different picture is presented.

Of the \$321,000,000 of securities registered by the 584 registrants, only \$74,000,000, or 23 percent, was sold within a period of about 1 year following the effective date of registration. Reports from 191 registrants show that none of the \$105,000,000 of securities registered by them—about one-third of the total registration covered by this study—was sold. For the remaining 393 registrants reporting some sales, total sales of \$74,000,000 were equivalent to 34 percent of the \$216,000,000 of securities registered by them.¹⁹

Obviously, the firm that cannot tap the community's supply of long-term capital except at high cost, and that cannot rely upon an immediate short-term credit extension when opportunity knocks, is at a considerable disadvantage. The role of capital and credit in business expansion and success has been, and in many respects will continue to be, crucial.

OTHER FACTORS IN MORTALITY

According to estimates based on Dun and Bradstreet data, the number of new enterprises averages about 390,000 each year—a birth rate of 191 per 1,000 of firms in business. The annual mortality of about 340,000 gives a death rate of 167 per 1,000. The net gain in new firms has been at the rate of about 50,000 per year or a net increase of 24 per 1,000 firms.²⁰ The data exclude financial institutions, railroads, professional enterprises, and other types not ordinarily concerned with commercial credit.

In 1936, 73.9 percent of new enterprises and 74.5 percent of the disappearances were in retailing; 10.3 percent of the new firms and

¹⁸ *Ibid.*, ch. XVII.

¹⁹ Securities and Exchange Commission, *Selected Statistics on Securities and on Exchange Markets*, August 1939, p. 35.

²⁰ See Temporary National Economic Committee Monograph No. 17, ch. XVIII.

10.2 percent of the closures were in manufacturing. Wholesaling accounted for 5.5 percent of the new concerns and 5.0 percent of the disappearances. It is clear from these figures that the bulk of the turnover rate can be attributed to mortality in retailing.

Local studies²¹ of retailing in scattered communities indicate that 30 percent of retail firms discontinue business within their first year; an additional 14 percent dissolve before reaching their second anniversary. If a store survives 2 years, the prospects of continuing 2 more years are much brighter. Infancy is the period of highest mortality.

The corporate form of organization is relatively more successful in survival, especially during the early years of business, since size and credit factors give the corporation some advantage. It is probable, however, that this advantage disappears after about 5 years of existence, since larger sized individual proprietorships survive almost as well.²²

Small business failure is often the result of practices of giant concerns whose endeavor to create monopoly control goes to unusual lengths. For example, a national baking corporation may invade and secure control of new territory by selling its product far below cost until local concerns capitulate to such aggression. Here, the resources of industrial giants prevent small businesses from operating successfully, despite the capacity of their proprietors. Forces entirely beyond the control of the individual businessman thus serve to fasten the hold of large corporations on the business community regardless of the relative efficiency of such organizations.

Other reasons for failure are: Incompetence; inexperience; inadequate foreknowledge of requirements in the way of capital, markets, and managements; excessive or over-extended credit; over-heavy withdrawals of funds from business income for personal use of the proprietor, sometimes determined not by what the business has earned but by family needs or by desire for a certain standard of living; inadequate accounting records and the consequent ignorance of actual costs or profits in various lines or in alternative activities; failure to move inventories or stock with resultant loss of good will; adherence to "customary" prices; failure to keep on the alert for substitute commodities, style changes, new competitive devices, and rapid changes in market conditions; office politics and internal struggles for power; failure of customers; and human frailties such as extravagance, indolence, speculation, unfortunate personality, negligence. These among other factors have caused small businesses to fail and will no doubt continue to do so as long as businessmen are fallible human beings.

AIDS TO SMALL BUSINESS

General Federal and State Regulation.

Small business has been the concern of government since the development of the common law and its prohibitions against forestalling and engrossing. The whole of both legal and economic theory traditionally assumes a small business society. It remained for the Sherman Antitrust Act of 1890, together with such additional legislation

²¹ For discussion of these studies, see *ibid.*, chs. III-V.

²² *Idem.*

as the Clayton Act of 1914, to reaffirm and reemphasize these traditional principles. It was big business which technology thrust into the economic and political structure, and it was against this huge newcomer that protection was sought for the Lilliputian members of the economic household.

Conspiracies in restraint of trade, attempts to monopolize, tying or exclusive leases, sales, or contracts, acquisition of competitor's stock, interlocking directorates—all were seen as dangerous to competition and hence to the survival of small firms. The primary agency designed to protect small business against "unfair methods of competition and unfair or deceptive acts or practices in commerce" is the Federal Trade Commission.

In the States, the pressure for legislation resulted in a variety of acts, some aiding the small firm and some indirectly harmful. In addition to the requirements for corporate charters (which differ widely as between States), most communities have license and franchise requirements for entry into various fields, or for dealing in particular commodities. The license requirements may stipulate the minimum capital needed, the qualifications or number of persons employed, the location approved, or may include posting of bonds or payment of special fees. These restrictions on entry into business tend to operate against the small firm.

The small concerns' complaint that the advantage lies with the large and financially powerful firm has resulted in the passage of a number of laws on marketing control.²³ Some of the restrictive provisions of State laws in this field cover—

- (1) capital combinations by consolidation, merger, trust agreement, interlocking directorate, intercorporate stockholding, contract, or other formal device;
- (2) voluntary associations, including pools, trade associations, trade agreements, codes, and gentlemen's agreements;
- (3) concerted action leading to price-fixing, price information, and agreement upon terms;
- (4) agreements regarding production quotas, sales, and market allocations;
- (5) patent pools and cross-licensing for the sharing of patent rights;
- (6) "blacklisting" practices in the exchange of credit information;
- (7) interference with a competitor's access to the market, by obstructing channels of distribution, or interfering with materials, equipment, or credit;
- (8) agreements between seller and distributor to exclude another's products from their transactions;
- (9) exclusive dealing, in which distributor agrees not to handle goods of a manufacturer's competitors;
- (10) exclusive representation, an arrangement the reverse of the item above;
- (11) tying contracts compelling a purchaser of one item to purchase other goods as well;
- (12) market boycotts in which there is concerted action to refrain from buying or selling;

²³ See Temporary National Economic Committee Monograph No. 17, ch. XIV.

- (13) contracts not to compete, usually upon disposing of a business;
- (14) predatory practices calculated to injure competitors;
- (15) obstruction, intimidation, and molestation, including sabotage, espionage, blocking of credit or supplies, suits in bad faith;
- (16) "bogus" competition, operations through concealed subsidiaries;
- (17) brands and sales forces used for deceptive competition, usually called "fighting brands" and "flying squadrons";
- (18) predatory price cutting to injure particular competitors;
- (19) imitative goods, inferior in quality but resembling a competitor's products;
- (20) disparagement of competitor's character, products, and business methods;
- (21) the misappropriation of a competitor's formulas, designs, trade secrets, and other intangible property;
- (22) bribery of employees or customers of competitors;
- (23) interference by a third party with a transaction between others.

Each of these practices has been effective in eliminating enterprises from business. The small proprietor is alertly aware of their discriminating nature. He associates them with "big business," with "corporations," and with the "interstate dealer."

The inter- versus intra-state struggle is currently presenting one of our greatest national problems, that of interstate trade barriers, for the local merchant has been seeking the aid of his community and State governments against the competition of the "foreign" competitor from the neighboring State.²⁴

Other Legislative Aids.

Some small businessmen have sought the aid of Government in other ways. Some have sought the passage of numerous State laws and the Miller-Tydings Act to implement programs of resale price maintenance. Other organized independents have obtained passage of the Robinson-Patman Act, prohibiting discrimination in sales. No "discount, rebate, allowance, or advertising service charge" may be given to any purchaser greater than that available to his competitors "in respect of a sale of goods of like grade, quality, and quantity." Selling goods at unreasonably low prices for the purpose of destroying competition or eliminating a competitor is outlawed. It is illegal for a distributor to sell goods at prices lower than those charged elsewhere by the same distributor "for the purpose of destroying competition." There have been "unfair practices" acts designed to protect margins and even a recrudescence of chain store tax legislation, a more direct attack on the mass distributing outlets.

None of these laws appear to have been as effective in achieving the objectives of their sponsors as was originally anticipated. Some have offered potential danger of back-fire, as, for example, the Colorado chain store tax law, which was held to apply to a voluntary-chain group. The loss of brokerage fees and discounts, an important source of income for some of the voluntary groups, was not anticipated by

²⁴ See ch. VI, *supra*.

sponsors of the laws. Then, too, the laws contain loopholes; the Robinson-Patman Act, for example, permits concessions reflecting savings to nonexclusive buyers.

Another type of Government aid to business is that of special inducements offered by the States. By this is not meant merely the extensive advertisements of resources, etc., made by many States and localities, but, rather, the bids to lure industry. The chief inducements offered new industrial firms are tax exemptions for periods of from 5 to 15 years and the provision of free or partly free land, plants, and equipment. This has encouraged uneconomic location, unwise promotion, and guerilla competition by roving entrepreneurs absorbing for the duration the special subsidies offered only to move on and leave behind worthless plant and disappointed local stockholders.

Government Financial Aids.

The present system of Government financial aid to small business is vested in two agencies: the Reconstruction Finance Corporation and the Federal Reserve System. In June 1934 Congress passed an act liberalizing the loan policy of the Reconstruction Finance Corporation and the Federal Reserve Board, adding section 5d to the R. F. C. Act and section 13b to the Federal Reserve Act.

Administrative regulations of the R. F. C. emphasize loans to supply working capital, but demand "adequate security." Bank participation in the loans is sought wherever possible. Borrowers are eligible when credit "is not otherwise available."

No information has been published by the R. F. C. as to the size of borrowing firms, but the size of the loans authorized indicates that small business has received little aid. Of \$450,000,000 in loans authorized by R. F. C. between 1932 and 1939, less than 4 percent were for loans under \$10,000 and only about 30 percent were for loans under \$100,000; at the other extreme, loans for \$1,000,000 or more represented almost 30 percent of the total amount authorized.²⁵ Actual disbursements in the 7-year period totaled only \$180,000,000; if the distribution of disbursements is assumed to be identical with that of authorizations, the total credit extended in loans of \$100,000 or less was about \$55,000,000 during the period.

The reasons offered to explain the discrepancy between authorizations and disbursements need not be detailed here. R. F. C. authorizations are a means whereby the small businessman convinces his bank that he is a good risk. Businessmen naturally prefer to build up local standing by borrowing from the bank, and so forth. Suffice it to point out that in actual fact the volume of loans made to small business by the R. F. C. has been small.

Section 13b of the Federal Reserve Act provides that "in exceptional circumstances," when a Federal Reserve bank is satisfied that an "established industrial or commercial business" in its district cannot secure funds "on a reasonable basis from the usual sources," the bank may "make loans to or purchase obligations of such business," or make commitments to do so.²⁶ Such loans or obligations may be for working capital purposes only. Bank participation in loans is encouraged.

²⁵ Cited in Temporary National Economic Committee Monograph No. 17, ch. XVII.

²⁶ See *ibid.* for discussion of Federal Reserve policy on small business loans.

After the first 6 months of operation, about 40 percent of all applications were approved. As of January 17, 1940, a little over \$400,000,000 had been applied for and \$189,000,000 had been approved. Of this, only \$22,000,000 of advances and commitments were outstanding, with the largest amount, \$60,000,000 in 1935. Of the loans and commitments approved at the end of 1937, 23 percent were for \$5,000 or less, 36 percent were between \$5,000 and \$25,000, 29 percent were between \$25,000 and \$100,000, and 12 percent were for more than \$100,000.

It is clear that both the Reconstruction Finance Corporation and the Federal Reserve banks are operating in the same area and with essentially the same powers, although the Reconstruction Finance Corporation is less restricted by statute than the Reserve banks. From several quarters the recommendation has been made that if the Reserve System is to continue making industrial advances, lending officials should adopt a less stringent policy toward loans to clear up existing debt and prevent forced liquidation.²⁷ It has also been pointed out that the industrial advisory committees, generally composed of "sound" businessmen not likely to be sympathetic to the needs of their smaller competitors or associates, tend to duplicate the functions of the regular lending officers, and bring about divided responsibility.

Reconstruction Finance Corporation policy has also been criticized.²⁸ Since audits and appraisals are an additional expense piled on the high costs for technical assistance arising from legal work on titles and mortgages, they ought not to be required except on fairly large loans. The policy of requiring "subordination" is a serious hurdle; mortgage holders who are asked to waive priority and create a first lien in favor of Reconstruction Finance Corporation may not feel that their own position will be improved by a Reconstruction Finance Corporation loan. Borrowers feel that centralization of Reconstruction Finance Corporation activity in Washington results in waste of time and effort. Much more discretion might be left to the agencies, while one central office limited itself to consideration of policy, hearing appeals, and handling large loans or cases of disagreement among the members of the local agencies.

Whatever the reasons, the facts indicate that the role played by both organizations in solving the financial problems of small business has been relatively slight.

SUGGESTED AIDS

Small firms are weaker and more susceptible to failure than are large firms. Depressions hit them more severely. They have serious and unsolved credit and capital problems. Many of them are struggling hopelessly against deep-rooted changes in economic organization, technology, and interregional trade. In their anxiety to remain afloat, small businessmen have sought and received aid from Federal, State, and local governments, but they are still at a disadvantage. What can or should be done to salvage such firms?

Some suggest Federal financial aid in one of three ways: (1) The supplying of equity capital through Government purchase of the

²⁷ For discussion see *ibid.*, pp. 231-236.

²⁸ *Ibid.*, pp. 228-231.

stock of small businesses; (2) the extension of long-term credit to small business by an agency of the Government; and (3) insurance by the Government of private loans.²⁹

Equity Capital Proposals.

Equity capital, it is said, can be provided through Government or private agencies purchasing preferred stock of small businesses. The argument for this proposal is that small businesses are already loaded with debt. More credit would involve a rigid system of interest and amortization payments, independent of the varying business fortunes of the small concern.

Private sources must be ruled out as a practical method of providing equity capital at the present time. Objection is raised to the Government's undertaking this task, on the grounds that it would be entering business as a part owner of the concern. However, the Government might take nonvoting preferred stock so that it would not have to set up an administrative mechanism for participation in the direct control of the business.

The short duration of business life of many small concerns and the fact that the Government would have no claim on any specific assets but only on the unimpaired assets of the business raises the question of the possible losses that might be incurred. Preference as to assets would in part eliminate this difficulty. The rate of return on stock of this kind, however, according to the proponents, should be put sufficiently higher than the interest rate on loans so that additional losses are covered by the additional profit from the successful firms.

Direct Loan Proposals.

The idea behind these proposals is that it would be easier for the Government than for private sources to extend credit to small business. The Government would not necessarily be seeking a profit from the loan and could more easily carry the risk burden which is involved in loans to small business. Moreover, the Government can lend in greater volume than any single private source and thus minimize the possibility of loss through a better distribution of risks. These proposals recognize that private sources cannot or perhaps will not grant sufficient credit to small concerns at the present time.

The direct loan schemes differ from each other on the issue of using existing agencies or creating new ones to administer the program.³⁰ The plans which favor existing agencies provide that the R. F. C. or the F. R. B. lend to small firms on more liberal terms. The advantage of such plans is that the organizations are already set up and would therefore incur less delay and expense in getting the program going. On the other hand, the utilization of existing facilities and personnel would tend to bring to bear, in the operation of the plan, the full weight of ordinary banking practice. The effectiveness of any plan depends, in part, upon the people and facilities who put the plan into practice. It is argued by those advocating the creation of new agencies that this factor would restrict the volume of small business

²⁹ See testimony of A. A. Berle, Hearings before the Temporary National Economic Committee Part 9, Savings and Investment, pp. 3809-3835; exhibit 620, pp. 4066-4079.

³⁰ Temporary National Economic Committee Monograph No. 17, Part III.

loans regardless of any new powers that might be authorized. Even a new agency would be free of this objection, however, only if the working and executive personnel were open-minded and creative enough to devise dynamic policies to fit the special facts. On the other hand, it would suffer from the organization difficulties of all new agencies and would be open to the charge of unnecessary duplication of facilities.

Regardless of the type of agency employed in such a system of direct loans, the experience of the extra-banking "retailers of credit" indicates some of the basic principles which must be considered in making the plan a success. The factors and accounts financing companies have developed techniques for pooling risks and for standardizing the procedures of appraisal, accounting, and servicing; what is more important, they have been able to group classes of risks as well as individual risks and have established charges appropriate to them. Fundamentally, their success is due to their being geared specifically to the financing of small firms.

Insurance Proposals.

The central feature of all the insurance plans lies in the attempt to obtain the requisite funds from private banking sources. They aim to make the fullest use of existing facilities and consequently eliminate the necessity of setting up extensive administrative machinery for field investigation. These proposals differ in two ways: (1) The type of agency; and (2) the type of insurance.

The type-of-agency differences revolve around the issue of creating a new agency or using present facilities. The need for administrative decisions would not be entirely eliminated under this arrangement, and the effectiveness of the plan would be limited by the restrictions on the types of loans insured. Thus the arguments for new as against existing agencies are much the same as those already mentioned under direct loans.

The type-of-insurance differences hinge on the issue of guaranteeing a specified portion of every loan or insuring each loan completely, but limiting total payments to a specified proportion of the total loans insured.³¹

The first plan would insure every loan a bank made to the extent of a specified proportion, say 90 percent; then the maximum insurance would be 90 percent and banks would in every case of failure bear 10 percent of the loss. The second plan would guarantee each loan 100 percent but the maximum Government insurance would apply to only a part of the total volume of loans. The maximum percentage which the Government should insure under this plan could best be worked out in practice. In the housing field the experience of F. H. A. under title I of the National Housing Act indicated that 10 percent is sufficient insurance; in the small business field a somewhat higher percentage would probably be necessary. This second method would probably produce a greater volume of loans than the other method of insurance. It would also be more costly, unless the percentage of failures exceeded the proportion of loans insured by a percentage

³¹ See *ibid.*, Part III, for list of bills introduced.

greater than the ratio of the uncovered to the covered proportion of each loan insured under the first plan.

Mixed Proposals.

A number of measures which have been proposed in Congress recognize that commercial banks cannot handle the problem adequately without additional mechanisms for the distribution of risk and for guidance to banks unfamiliar with the handling of small business credits, as well as for extension of aid which local banks cannot provide.

One such proposal provides for the creation of an Industrial Loan Corporation which would utilize the machinery of the Federal Reserve System.³² In its operations such a corporation would finance small and intermediate businesses through the acquisition of their obligations or by the purchase of preferred stock. The corporation could also make advances directly or in cooperation with local banks or guarantee loans made directly by banks. Losses would be prorated between the lending bank and the corporation. As in the case of title I of the Federal Housing Act, this proposal utilizes the existing banking system but endeavors to overcome some of its deficiencies.

A system of regional finance companies has also been suggested, with common stock owned by private individuals in the district. The Government would invest in their preferred stocks, though with little or no voting power. The primary interest of such companies would be provision of equity capital, although loans might also be made. Private individuals would own, control, and operate the banks under this system; by purchasing only nonvoting preferred stock, the Government could not own or control the businesses in which investments were made.

It is clear that proposals for purchase of stock are of little aid to unincorporated small businesses, which constitute the vast majority of firms. Moreover, the mere reduction of costs or increase in supply of credit will not solve all the problems of small business. There is a need for obtaining the benefits which large business enjoys through its research and analytical services. Small business would be greatly aided by a systematic informational and research service, introducing modern accounting techniques and the wider application of efficient business practices. It has been suggested that the Department of Commerce could be authorized to conduct research and to supervise business research stations among the State universities.³³ Studies of organization, policies, and operating methods could be carried on with specific attention to the accounting, financing, and marketing problems of small business in various industries and regions. In this way small firms can be given some of the advantages which now are restricted to large-scale operations. The effectiveness of agricultural extension work and experiment stations indicates the value of a decentralized program to aid small business.

³² See S. 2998, 76th Cong., 2d sess. For other suggestions see Temporary National Economic Committee Monograph No. 17, ch. XVIII.

³³ See hearings on H. R. 3395 and S. 1740 and S. Rept. No. 599 on S. 1740, 76th Cong., 1st sess.; also Hearings on H. R. 3395, 76th Cong., 3d sess.

INCREASING NATIONAL INCOME

The success of any policy designed to aid small business depends in part upon the trend of general business activity. Small business cannot be prosperous unless the whole Nation is equally well off. It is indisputable that many firms would show profits rather than deficits if their sales volume increased. A broad recovery program aimed at achieving full utilization of both idle labor and idle capital would greatly lift the level of sales and insure that the assistance to small business would be a profitable venture. Any program to aid small business must be part of a wider program to stimulate business activity and employment. If the economy as a whole does not rise to higher levels of employment and business activity, the effectiveness of any capital or credit program will be greatly reduced.

CHAPTER XV

CONSUMERS¹

CONSUMER ENTERPRISE

American consumers operate the largest business in the world. This year they will take more than \$60,000,000,000 of spending money and convert it into 200,000,000 pounds of foodstuffs, countless items of clothing, shelter, recreation, transportation, and the many other goods and services which today make up the living of American families. Not only is consumer purchasing the largest branch of American industry, it is also the purest example of individual enterprise remaining on the American scene. Except for consumers' cooperatives, which handle only a small percentage of total consumer business, consumers still work alone.

Likewise consumer purchasing is by far the most strictly laissez faire division of American industry. The businesses of banking, manufacturing, transportation, merchandising, mining, agriculture, and wage earning command more earnest attention of Government by way of promotion, protection, or grants-in-aid, whichever they may demand, than is given to the business of spending family income for the purposes of family living. In spite of our business-minded culture, we seldom think of the consumer transaction as a business venture, though it involves all the business elements of anticipation, risk, investment, and bargaining. Perhaps that is why it is still performed in much the same manner, and in many respects not so efficiently, as in the early days of the era of free enterprise some 300 years ago. Face to face with all the aggregations of power, controls of practice, and aids from Government in those parts of American business which produce and distribute goods and services, the business which consumers manage is an anachronism.

In the words of two business authorities:

It is not surprising that the consumer today gets so little for his dollar. The wonder is that he gets as much as he does. Think it over for a few minutes. Many large interests are arrayed against you. The manufacturers are able to employ the ablest men—from chemists to psychologists—to fool you. The merchants can employ the ablest literary and artistic brains to prepare advertisements to mislead you. The publishers of newspapers and magazines, whose income depends upon these advertisements, are almost forced to shade their news columns to aid the seller of the goods rather than the buyer. This applies even to your small investments in case you have a dollar left after all the various vultures have had a turn at you. Railroads, lawyers, doctors, and candlestick makers all seem combined to milk you. * * *

¹ This chapter was written by Donald E. Montgomery, Consumers' Counsel, Department of Agriculture. It was reviewed by Dr. Mordecai Ezekiel, economic adviser to the Secretary of Agriculture; P. G. Agnew, secretary, American Standards Association; Dr. Esther Cole Franklin, associate in social studies, American Association of University Women; and Miss Caroline F. Ware, assistant to Commissioner Harriett Elliott, Office for Emergency Management.

* * * Living costs for any family can easily be reduced about 30 percent by system and study. This is equivalent to an increase in salary or income of over 30 percent. * * * The net result would be that your family's standard of living would increase over 30 percent while the general price level is rising and the standard of living for most people is declining.²

One of the witnesses (L. R. Walker, Sears, Roebuck & Co.), before the Temporary National Economic Committee likewise believed that "if the consumer knew the standards" he could save "25 percent at least" on many products he buys and thus improve his standard of living by about the same percentage.³

THE CONSUMER INTEREST

Consumer interest centers on the kinds, qualities, and quantities of goods and services that may be obtained for individual or family purposes. It is concerned with income spending, whereas the various occupational interests of people are concerned with income getting. Everyone must be a consumer in order to remain alive. Most people probably think of themselves as consumers primarily, with only an acquired or enforced interest in the things they have to do in order to keep on consuming. This tends to obscure the fact that the consumer interest, like other economic interests, is specialized in character and limited in scope. Though it is common to everyone, it is not anyone's sole interest.

The citizen is a bundle of economic, social, and cultural interests—working, earning, investing, voting, taxpaying, spending, worshipping, playing, and loving. But only in his spending does he perform in an economic sense as a consumer, although, to be sure, his spending and what he gets for it are intimately related to all other phases of his living interests.

Just as each person is a compound of a great many individual interests, so the public interest is a compound of many group interests. At times the interest of the Nation, or the public interest, focuses on strengthening its productive forces; at other times, on increasing its defensive power; at still other times, on safeguarding its civil and political liberties. To claim that the consumer interest of all citizens together is identical with the public interest is to say that a man exists only to consume, not to love, not to exert power, not to work, not to join with his fellows. The consumer interest of all citizens together is only part of the public interest. Other parts of the public interest are the interests people have in taxes, in earning incomes, in freedom of speech, in the right to vote.

Nor is it true that the consumer interests of all citizens are similar. The \$5,000-income spender concerns herself with very different problems from those which engage the typical American housewife with \$100 a month to spend, or the hard-pressed mother who keeps a family of four together on \$10 a week. These differences are as great as those which divide the income interests of employers and wage earners, farmers and city workers, skilled and unskilled, though with consumers, as with the others, what concerns one is of concern to all.

² Roger W. Babson and C. N. Stone, *Consumer Protection—How It Can Be Secured*, Harper & Bros., New York, 1938, pp. 200-201.

³ Hearings before the Temporary National Economic Committee, Part 8, *Problems of the Consumer*, p. 3432.

The consumer interest, then, is a special interest. Only when it is so understood will fruitful efforts be made to do something about it. To lump it indiscriminately with the public interest serves merely to dismiss it from further consideration. To define it vaguely as everyone's business is to make it precisely no one's business. Its stunted growth as an object of public concern until now is most readily explained as being due to just such protective thinking concerning it.

Though a special interest, the consumer interest ranges more comprehensively than most others over the whole field of economic behavior. Consumers are wary lest they be cheated an ounce or two on a pound of groceries. But they are concerned also with larger matters: The stability of the spending dollar; the total supplies of goods made available for consumption; the ability or willingness of industry to find and to use cheaper ways of making better things; and what governments can do to prevent fraud or to provide trustworthy information. When he appraises his economic world with a consumer eye, the citizen begins to approach a comprehensive judgment concerning it. Then he becomes aware not merely of who is getting what out of it, and at whose expense, but of its overall continuing ability to produce the goods, and to keep doing so, and to do it better year after year with an ever lessening burden of human toil and degradation.

In the theory of free enterprise this consumer habit of appraising a nation's economy by what it produces for use and enjoyment is more than an intellectual exercise: it is an essential feature of the system. What the theory calls for is that those who engage in enterprise shall not be hindered by Government interference from competing freely with one another for the favor of the ultimate consumer. In practice public government is required to enforce competitive conditions by protecting entrepreneurs from interference by the private government of monopoly. Then, the goods having been produced and priced under conditions of free competition, consumers freely choose those they like at the prices they can afford to pay. According to the aggregate weight of their choices, success or failure in enterprise is determined. It is the essence of a system of free enterprise that consumers exercise this final control of it.

The essence of consumer control, in turn, is free choice. To compel the operation of industry along those lines which produce results most satisfactory to themselves, consumers must be allowed to choose freely among all the available alternatives of kind, quality, service, and price.

The essence of free choice, in turn, is twofold: The existence of alternatives from which to choose; and knowledge of what the alternatives are. Monopoly may destroy the first; misrepresentation and concealment deny the second. Only to the extent the consumer knows at the time he makes his choice what products and services are available, how each one will serve him over the period of its usefulness, and how they compare one with another for the purpose he has in mind can he express his desires in the choices he makes and cast his consumer vote to constrain free enterprise to serve his ends.

This is the point at which consumers come into contact with restraints imposed upon them and feel the impact of concentration of economic power in industry and trade. Those who would escape the

controlling force of consumer choice attempt to restrict it by imposing their own controls. Instrumental always to that purpose is the practice of withholding from consumers knowledge of what their alternatives actually are or what they might be if concentration of control did not exist.

Resistance to such concentration of control takes many forms in the variety of activities that consumers have undertaken as parts of what is known as the consumer movement. Varied as these activities are in immediate purpose or ultimate ambition, all have the common purpose to bring knowledge to consumers with which they may choose wisely in their own interest.

IMPACT OF CONCENTRATION OF POWER UPON CONSUMERS

Price Control.

Most obvious and direct in its effect upon the interest of consumers is the power to control output or to fix prices. The consumer interest of the Nation requires that an abundance of useful goods be made available at prices which people can afford to pay. Therefore, when people view the economy as consumers, they endorse a policy of low-cost high-volume operation. Such a policy serves consumers by making goods more accessible to their purses and at the same time recompenses producers by providing a wide market for their products.

Looking at the trade or occupation in which they themselves are engaged, however, the same consumers may take a different view. Then they use producer eyes and are likely to see greater security in a limited output gaged to a high price. From the consumer view, volume operation in one industry is seen as creating purchasing power for the volume operation of others. Production begets production. From the producer view, each occupation sees an advantage to itself in producing less while others produce more. Restriction begets restriction.

Where concentration of power exists, the producer view of the matter is likely to prevail unless Government intervenes to enforce acceptance of the consumer view. Where concentration of power is lacking, a decision for consumers is more likely; but experience indicates that this result is assured only when Government polices the channels of trade to maintain competitive conditions, and refrains from exercising control of the outcome in favor of a particular producer interest. A third possibility arises in the case of public utilities operating under exclusive franchise. There the concentration of power is absolute, and Government steps in to divide the issue between consumer and producer interests, protecting the former from outright extortion but assuring to the latter a sustaining security of investment.

As stated above, the primary protective weapon of consumers is their freedom to choose, based upon knowledge. Yet the mere knowledge that production or price of a given product is subject to control may not offer consumers immediate practical relief from the restraint it imposes upon them. That will depend upon the alternatives available to them and their own power.

If substitute products free from control are available, it is possible that effective publicity on the facts of control and how it injures

consumers would stimulate them to exercise their freedom of choice. Singly or collectively they might switch their patronage to the substitute products. This assumes, however, that consumers have at their disposal enough of the facts about the actual qualities of merchandise to know which goods are substitutes for which. Withholding of quality facts from consumers is discussed below. Here it is sufficient to note that one of the most common devices for achieving at least partial control of price is to create the illusion among consumers that a given commodity is beyond comparison and that substitutes are not acceptable. It is appropriate to note also the practice of controlling volume and price of that part of the total output of a commodity which is sold under a particular name, or in a particular market, or for a particular purpose, while offering it at a lower price under a different name, in a different place, or for another purpose.⁴ Concealing the identity of the product sold under two names is essential to this exercise of control over consumer choice, unless the markets or the purposes in which the dual merchandising takes place prevent consumers from choosing to buy the product at the lower price.⁵ For example, as employed by the Government under grant of power in one of the farm laws, this practice of two-pricing the same product does not require concealment of identity because consumers are not in a position to switch from the higher- to the lower-priced offering. The latter is changed in form before it reaches them, or it is shipped out of the country to consumers abroad.

Knowledge of control exercised over a commodity for which there is no available substitute would seem to offer consumers little opportunity to exercise freedom of choice to correct the situation imposed upon them. Acting individually in such matters, as consumers alone among the characters of our economic drama almost invariably do, they can take it at the price charged or do without. Should they adopt the collective bargaining methods common to all other interests they might visit penalties upon price-fixing industries if the facts were known to them.

As matters stand, however, the issue is moot. Only governments can get these facts for consumers. Where express power to obtain and disclose the facts of economic control has been granted, there is a noticeable shortage of funds to make the power good or sometimes a lack of administrative virility in putting it to use. Decisions of the courts have tended to impede the exercise of Government fact-finding powers by clothing corporations with the rights of privacy guaranteed to the citizen. This degree of immunity from examination by Government, enjoyed by corporate concentrations of economic power deriving their corporate powers from Government, is a major obstacle to the programs of self-protection against monopoly which consumers might evolve if the facts were known to them.

Control of Progress.

When the economic power of an industry is used to prevent or discourage the offering of new or different products, or the use of other

⁴ For illustrations of this, see Hearings before the Temporary National Economic Committee, Part 8, Problems of the Consumer, testimony of Milton R. Maddux, purchasing agent, Hamilton County, Ohio. For example, he buys on specification oil at 33 cents a gallon which retails at 35 cents a quart (*ibid.*, p. 3445).

⁵ Said L. R. Walker, of Sears, Roebuck & Co., on this point: "We have a tooth paste for 19 cents that is the same tooth paste that is sold in our store under different brands for around 49 cents. * * * And you find that generally" (*ibid.*, p. 3432).

methods of manufacture, sale, or installation than those currently employed, the effect upon consumers is to limit the alternatives from which they can choose. The proscribed goods or methods might not find favor with consumers even if offered freely alongside those which the industry does offer. When, however, by the shelving of patents, or the use of tying contracts for full-line forcing, or through trade and labor agreements, the alternative products or methods are excluded from the market, freedom of choice is denied to consumers and is exercised for them by parties with an adverse interest.

No other form of control strikes more directly at the vitals of a system of free enterprise or more certainly threatens its displacement than those which preclude experiment and innovation. A major virtue of free enterprise, distinguishing it from centralized planning, is the trial-and-error process by which entrepreneurs when unrestrained seek to find new products or new methods for winning a share of the consumer market. This provides stimulus to invention and is the source of progress. As a guide to progress in goods or services, there can be no permanently satisfactory substitute for the exercise of choice and the expression of opinion by consumers after alternatives have been offered for their sampling.

Control of Choice.

Witnesses testifying before the Temporary National Economic Committee in May 1939 described the handicaps experienced by consumers through lack of reliable and useful information when they are making choices in the marketplace. Two witnesses from industry illustrated from their experience how this lack on the part of consumers interferes with competition and contributes to concentration of control in the consumer market. A municipal purchasing agent drew upon his professional experience to show how accurate information about commodities can effect large savings for a purchaser.⁶

Consumer difficulties on this score are: Misinformation, lack of information, and lack of objective standards upon which to base useful commodity information. As a remedy for the first, there is an acknowledged responsibility of governments to afford protection to consumers. For the second, consumers employ their own devices for testing and rating commodities, and collaborate with merchants on informative selling programs. These undertakings, however, are seriously hampered by the inadequacy of existing standards by which the use characteristics of consumer commodities can be tested, rated, and described, and the failure on the part of merchandisers to use such standards as are available for that purpose.

Before the advent of modern business enterprise, merchandising escaped these consumer problems because the variety of commodities offered was severely limited, and those that were available were controlled as to quality and representations by rules of the producer guilds. Release from the freezing traditions and controls of that system cleared the way for the great advances of modern industry. The resulting variety of goods open to consumer choice has been phenomenal. The advance in quality and usefulness of available products has been rapid and persistent.

⁶ Hearings before the Temporary National Economic Committee, Part 8, Problems of the Consumer.

To enable consumers to keep pace with these changes a corresponding improvement in the technique of describing and rating commodities is necessary, so that consumers, without themselves becoming masters of each craft, may compare goods and select them according to their own needs and purses. Quality standards could do for the distribution of goods what scientific and engineering skills have done for production. They would provide objective measures of content, construction, or utility. They would be modified and expanded as advances in production technique become established. They would facilitate comparison of one commodity with another in terms comprehensible to the lay purchaser of household goods. The ever increasing use, indeed, the necessity, of objective standards in the productive process itself and in transactions between buyers and sellers antecedent to the sale of final products to consumers gives convincing evidence of what standards can accomplish for both production and distribution.⁷

Development of such standards for consumer use has been negligible. This fact, coupled with marked development over the last 20 years of the devices of sales promotion, has tended to retard rather than advance what consumers are able to know about their alternatives, and consequently to limit their freedom of choice. Opportunity for choosing among many possibilities has continued to expand, but the means of exercising it intelligently are more difficult than in the days of a simpler economy. One of the changes in emphasis that marked the decade of the 1920's was a shift in promotional effort from the creation of goods to the creation of mass acceptance on a Nation-wide scale. New skills were developed for influencing consumer choice, but the application of objective standards to that problem was not one of the means employed.

Because standards for consumer use have not been developed to appreciable extent, neither the obligation of Government to protect consumers from misinformation nor the effort of consumers to supply themselves with true information has measured up to the task of keeping consumers abreast of the rapid evolution of modern industry. As ultimate controllers of the economic system they are, so to speak, disfranchised for want of useful information about the choices offered to them.

What the Federal Government has been doing to protect consumers from misinformation is catalogued in a subsequent section. Its work in this field has been enlarged by recent laws. There is at least a beginning in these laws and their administration to advance consumer protection into the field of requiring that true and necessary facts be told as well as to penalize the telling of untrue facts. Court opinions seem to tend in the direction of holding the consumer's right to be told the truth above the vendor's right to take advantage of what the consumer doesn't know.⁸ There is a beginning, too, in some State governments to get the facts about rival products and to tell them to consumers with trade names identified. However, budgets for all

⁷ See Temporary National Economic Committee Monograph No. 24, *Consumer Standards*, by S. P. Kaidanovsky and Alice L. Edwards.

⁸ *Federal Trade Commission v. Standard Education Society et al.* (302 U. S. 112, 116).

"The fact that a false statement may be obviously false to those who are trained and experienced does not change its character, nor take away its power to deceive others less experienced. There is no duty resting upon a citizen to suspect the honesty of those with whom he transacts business. Laws are made to protect the trusting as well as the suspicious. The best element of business has long since decided that honesty should govern competitive enterprises, and that the rule of caveat emptor should not be relied upon to reward fraud and deception."

such work, State or Federal, are insignificant in amount, with the result that the protection given to consumers is decidedly incomplete. A further drawback is the failure of most Government agencies to see to it that consumers learn of the actions taken in their behalf against misrepresentation. Formal rulings, wholly legal in concept, are released to the press in due course, but come to the attention of consumers only insofar as they are rewritten in consumer language and published where the average reader is likely to see them. Most fundamental of the limitations on this protection of consumers is the lack of objective commodity standards by which falsehoods and half-truths might be gaged, or truth defined. In the absence of such standards each action against alleged misrepresentation calls for elaborate, expensive, and time-consuming proofs. By the time a decision is reached it is likely to have historical interest only, because meanwhile a new form of misrepresentation of the product may have been substituted for the one in question.

Limitations of the testing and rating services operated by consumers themselves have been well stated in testimony before the committee.⁹ Here, again, the chief hindrance is lack of commodity standards as a basis for rating the products tested. Comparative information concerning similar or substitute products is necessary to informed consumer choice. Standard scientific descriptions of the quality factors of goods are necessary if such comparisons are to have any objective basis in fact.¹⁰ The same problem confronts and delays the effort of consumer and trade groups working together to promote more informative selling practices.

Voluntary adoption of informative selling methods by individual concerns incurs the same difficulty. Full and accurate description of a particular product is usually impracticable and, in itself, not wholly serviceable. It does not permit comparison of that product with another product, except when the latter also is fully described and then only if consumers are sufficiently expert to make comparative judgments of the two sets of facts. Standards, if available, would provide a system of rating all like products in such manner that any consumer might compare them.

Consumer standards, however, cannot be fixed by individual concerns. By their very nature they must be applicable to all concerns alike. They must be based upon the experience of all and arrived at through group or Government action. Furthermore, much remains to be discovered about the quality and use characteristics of consumer goods if standards are to be developed. Sampling, inspection, and test techniques must be perfected. This will require extensive investigation drawing upon all available research resources. In short, the standards which consumers must have if they are to function effectively in their own interest and for the economy as a whole call for an extensive program of organized action, involving manufacturers, distributors, consumers, and Government agencies.

The task is extensive, but not overwhelming. Compared with the accomplishments of applied science in the development of production

⁹ Testimony of Dexter Masters, Hearings before the Temporary National Economic Committee, Part 8, pp. 3329-3343. See also Consumers' Union Reports, January 1941, p. 3, *The January Wonderland*.

¹⁰ See the testimony of L. R. Walker, Hearings before the Temporary National Economic Committee, Part 8, pp. 3413-3432.

techniques, it is relatively simple. Not lack of ability, but lack of interest, seems to be the cue for failure of our economy thus far to adopt appropriate methods for transferring the products of industry into consumer hands—lack of interest on the part of vendors who find it easier to deal with uninformed consumers; lack of interest on the part of governments which to date have recognized few specific obligations to serve consumer welfare; and lack of interest among consumers themselves.

This is about where matters stand today on the question of the consumer's freedom to choose. Progress is being made toward providing those standards which would liberate and implement consumer choice. Yet it is slow and is made against great odds. It is a collective task, but there is no widespread agreement that it should be undertaken and carried through. On the contrary, there are many evidences of unwillingness to take part or to permit progress to be made. It is a social development that appears essential to the expressed desire of many to preserve and make workable a system of free enterprise; yet it is ignored, even derided, as a step which concerns consumers only, and among consumers only the articulate minority.

It is true there is widespread consumer indifference, which is valuable to any who may desire that consumers be not able to influence the trends of industry through the power of their informed choice. Their indifference may be cultivated by diverting attention to the many delightful but irrelevant features of the commodities they buy. So cultivated, consumer choice tends to escape from the realm of fact to the field of fantasy. It becomes something quite different from the matter-of-fact pursuit of self interest which characterizes alike the buying habits of a shrewd, necessitous housewife and of the purchasing agent of a multi-million-dollar corporation. It becomes more emotional than reasonable. It is mass acceptance. To the degree their purchasing decisions can be regimented in this manner, consumers become the controlled rather than the controlling factor in the economy.

This leads to the consideration of what part is played by concentrations of economic power in the control of consumer choice. Selling pressure is more compellingly exerted by larger concerns. Persistent persuasion on a large scale can establish, if successful, what economists speak of as the quasi-monopoly of a brand name.¹¹ It can also exact a remunerative differential in price for actual or supposed extra values in the branded product, or for credit or other services sold along with the product. On the other hand, it is true that sales pressures exerted by several powerful rivals tend to cancel each other in their persuasive effect on consumers without, however, substituting for the conflict of bewilderments in their minds the wherewithal of informed choice.¹²

Monopolies, however, enjoy no monopoly of the art of telling consumers as little as possible about what goods are good for. Sales methods that are as little informative as high-pressure Nation-wide campaigns are used by smaller concerns which can spend no great sums to put their products across. When the withholding of useful comparative information about products is the established practice,

¹¹ Whether or not such brands represent better values for the consumer than less successful brands is not here in question. The question is whether the preference they enjoy is decided by consumers or for them.

¹² Also without yielding up to the multitude of little brands any part of the lion's share of the market which a few large brands in many commodity lines enjoy.

the large withholders can do so to better effect than the little withholders.

Concentrated economic power alone is not responsible for the practice of not telling consumers what they need to know; but neither has it contributed very much as yet to the elimination of that practice. Several of the good examples of informative selling now to be found are furnished, to be sure, by large factors in manufacturing or distribution. But they are few. Big business has done very little to date to modernize its selling practices in the same way it has modernized production. Big names still inspire consumer confidence more because they are big than because of what they tell about the goods they have to sell. Large concerns do not appear to feel that in return for the faith expressed in them by mass acceptance of their products they have a duty to deal more candidly with consumers. That still is not recognized as a *quid pro quo*, except by a few.

Whether or not the withholding of information is a peculiar device of concentrated economic power, for consumers it remains a central fact of modern life. With the complexity and variety of products offered on today's markets, scientific objective commodity standards are the only means in sight whereby the interest of consumers can be geared in a sound and satisfactory way to the modern processes of production and distribution. Freedom of choice is not something that happens; it must be created by establishing and maintaining conditions that permit people to know what they are choosing and to choose as suits them best. To achieve it under modern conditions of manufacture and sale requires more than lip service; it requires the co-operative, far-sighted labors of many people.

The prosperity and indeed the preservation of the Nation are linked to business success. Encouragement to business is a major concern of public policy. Business enterprise permeates our culture. Almost, it seems, consumers exist to make business successful. But only when the ultimate customers of business are able to evaluate its performance in terms of their own well-being—the goods it makes, the services it renders—can we be sure that business success is firmly linked to the general welfare.

GOVERNMENT AID FOR CONSUMERS

Consumers are assisted by whatever government does to keep open the channels of trade, to promote conditions in which a larger and better supply of goods regularly comes to market, and at prices which permit consumers to purchase them. They are directly assisted by what government may do to keep harmful products off the market, or to bring more information to consumers about commodities. They may find indirect assistance also in government information that would interpret to them the current controls and conditions in industry which determine the quantity and value of its output.

Because consumers transact their business almost entirely on an individual basis, they possess unequal bargaining power with other economic units, most of which are organized and are steadily extending the scope and power of their organization. Consumers generally would not desire to reverse that trend, since most of them probably take part in some form of organized action in their income-earning capacity. But in their income-spending activities for the most part

they work alone, and therefore rely upon such assistance as Government may offer to make their bargaining power more nearly equal.

There are exceptions to this. In slowly but steadily increasing numbers consumers are associating themselves with cooperative enterprise in the distribution, and to a more limited extent production, of goods under their own control. In so doing they acquire a collective bargaining power which may eventually win them some measure of equality with other organized groups. In that event they may not look to government to even things up. It is a cardinal point in the co-operative philosophy that government assistance be avoided lest it invite interference or weaken the self-reliance of the cooperative program.

Cooperative expansion, however, if it is to be sound and is to remain subject to consumer control, in fact as well as in principle, will be slow. Today it probably accounts for not more than 2 percent of all retail sales of commodities, much of which is accounted for by supplies for farm operation. The commodity areas in which, during its period of new growth, it finds satisfactory conditions for successful operation are still limited, although they embrace a sizable proportion of the normal family's budget. The population groups which it is presently reaching are restricted. Only a small fraction of all American consumers have yet come into direct contact with a going cooperative enterprise that is prepared to serve their needs, and many of these people have not yet shared in a cooperative undertaking.

Yet the demonstration which cooperatives have already given of their ability to serve consumers effectively is not to be overlooked. In supplying accurate information for the guidance of consumer selection they are not yet doing all that is possible, but they are doing it more thoroughly than any but the most exceptional noncooperative enterprise. Furthermore, they have shown by their handling of some farm supplies and some forms of insurance that they can effect major savings for consumers in direct competition with established industries. Such savings are most striking where the distributing cooperatives reach back into production and supply themselves with their own products. Such expansion of operations goes forward steadily.

Consumers' cooperation may prove to be the one sound answer to the consumer demand for an abundance of sound products priced for use, and for reliable information about commodities. But it will not be an early solution of all consumers' problems, nor will it obviate the need for Government aid. Even the strongest consumers' cooperatives find on occasion that they require attention of government, either by way of assistance to themselves comparable to the assistance given to competing forms of enterprise or by way of remedial action against competitors who seek to exclude them from the common channels of trade. Furthermore, they will need the assistance of government and others in devising standards for giving useful information to their members about the goods they handle.

In ways other than cooperative enterprise consumers are beginning to organize to serve themselves and to express their demands. Through their own testing and rating agencies they are getting facts about the utility and performance of identified commodities.¹³ Education in

¹³ Description of one of these agencies is contained in the testimony of Dexter Masters, Hearings before the Temporary National Economic Committee, Part 8, pp. 3329, 3339-3343.

home economics, which for many years has concentrated on training the individual consumer to make such use as she can of the information available to her in the marketplace, gives rise now to an organized effort to increase the supply and accuracy of such information. Three national women's organizations work regularly with representatives of manufacturing and trade for the voluntary adoption of informative labels and for the definition of commodity standards as a basis for more useful information.¹⁴ They have drafted a formal platform of their objectives in these fields. Other consumer organizations, local in scope, work on specific problems confronting consumers in their markets. Most striking in this field are those which participate actively in State or Federal hearings for the fixing of milk prices, and others which have organized tenants to voice collective protests and demands on rent scales and housing conditions. Finally there is a beginning of formal collective bargaining by consumers with respect to the prices they pay, similar to the bargaining of labor unions on wages and working conditions. This has appeared so far only in agreements on prices to be paid for milk and milk products by two local consumer committees of several hundred families each, bargaining collectively with distributors.

The vast majority of consumers, however, lack organization for better bargaining and self protection. They also occupy an isolated position in the expanding field of collaboration between government and industry. More and more government is being called upon to take part in the operating details of the economy, usually on behalf of a producer interest concerned primarily with the security of its income or its investment. New steps are being taken by government for consumers, too, but they scarcely classify on the same level as the vigorous and expensive programs undertaken in response to producer pressures. The aid which government renders to producer groups solves some problems for them, but may create new ones for consumers. This possibility gives additional ground for recognition by government of the special problems which arise in the consumer phase of the lives of people whose government it is.

Types of Government Action.

To approach most realistically the appropriate services which government can render on this aspect of economic life, consideration should be given to the broad types of activity in which government engages on behalf of other economic interests of the population. What government does in a democracy is what the people require and approve, doing it as and when the need becomes imperative or is made apparent by the articulate expression of the people involved. Consequently, the activities of the Federal Government embrace a wide variety of specific purposes, but for simplification most of them can be covered within three major purposes: (1) promotional—To promote by education, research, or direct participation, the purposes and success of people engaged in their private activities, and by so doing to promote the general welfare; (2) protective—To protect people from physical and economic injury by others, including those with whom they must trade or bargain and those who compete with them;

¹⁴ General Federation of Women's Clubs, American Association of University Women, and American Home Economics Association cooperating in the work of the National Consumer-Retailer Council and the American Standards Association.

(3) financial—To provide assistance in the form of loans or grants to persons, corporations, and associations, in order to maintain solvency at points in the economic structure where collapse is threatened, or to subsidize new and unprofitable undertakings rendering a necessary public service.

Promotional research and education has been carried on for years by the Government, especially for the improvement of productive methods in agriculture and industry. In later years economic research and the reporting of current economic data have been greatly expanded, with particular reference to agriculture, labor, industry, and domestic and foreign commerce. Both laboratory and statistical research in the field of public health are carried on by the Government. The special problems of child growth and health, and of women in industry, are studied and action on them is encouraged through government educational services. Trade standards for use in industry and commerce are developed with government assistance. In addition, there are a great many services rendered to productive or business undertakings with the general purpose of enabling them to perform more efficiently, to find wider markets for their output, and to enhance the possibilities of profit. By and large the Government is called upon to render promotional services to economic enterprise when a service desired is not already being rendered on private initiative, or extends in scope beyond the range of private resources, or can be more economically or more impartially rendered by government.

The protective services of the Government include controls of rates, prices, wages, hours, and volume of supply; arbitration of employer-employee disputes; protection against prices and controls of foreign competitors or governments, and against unfair practices of competitors or employers; and protection of trade-marks and patents.

Prices are controlled or enhanced for agriculture through acreage allotments, marketing quotas, marketing agreements, loan rates, surplus diversion operations, and, in the case of milk, by price-fixing orders. Permission to fix resale prices for commodities identified by their trade-mark is given to manufacturers operating in interstate commerce. Minimum prices for bituminous coal at the mine are fixed by Government order. Prices of crude oil are supported by exclusion from interstate commerce of oil shipped in excess of State-fixed quotas. Transportation rates are regulated for the protection of shippers and of the financial stability of transportation agencies. Tariff laws protect domestic producers in their competition with imported commodities. Minimum wages and maximum hours are prescribed for large groups of wage earners.

Prohibition of unfair and deceptive acts and practices under the Federal Trade Commission Act and similar laws pertaining to particular industries protect manufacturers and merchants from some forms of competition. Enforcement of the antitrust laws preserves for businessmen the opportunity to transact business in unrestricted channels of trade. Similarly the National Labor Relations Act protects the opportunity for collective bargaining by labor unions from unfair interference by those opposed to it.

Financial aid is extended to banks and industry through loans at low rates, and to agriculture through commodity loans, parity and conservation payments, subsidies on surplus removal operations, and loans

to agricultural cooperative associations. Commercial air lines and the merchant marine receive financial aid from the Government. This brief outline illustrates the general nature, though not the whole extent, of Government aids on behalf of producer and commercial interests.

Government Services to Consumers.

Promotional.—In the consumer field the promotional function of the Federal Government gives rise to a variety of activities. Invaluable research in nutrition and on many kinds of consumer goods and their uses has been conducted by the Bureau of Home Economics for many years. This is one of few distinctly consumer agencies in the Government. Of primary importance also are the retail price and cost-of-living reports published by the Bureau of Labor Statistics. At least 10 Government agencies publish materials which help the family do a better job in meeting its living problems. Consumers' Guide, published by the Consumers' Counsel Division of the Department of Agriculture, is the most widely distributed bulletin, going to 150,000 subscribers 20 times a year. It aims to help the family with its practical problems and to give that help in popular and attractive form. Another service promoting the interest of consumers is the instruction and supervision given to cooperative saving and lending organizations known as credit unions. There is a promotional aid to consumers in the projects of the Farm Security Administration and the Tennessee Valley Authority in the better utilization of income by families included within their projects.

Protective.—The Federal Government exercises its protective function on behalf of consumers in three ways: (a) control of the kind of goods that may be sold; (b) control of representations made in the sale of goods; and (c) maintenance of competitive conditions or regulation of controlled prices. These controls apply only to transactions in interstate commerce, except where the weight and measure power of the Constitution is invoked.

For the most part control relates to the commodities themselves only where this has seemed necessary as a protection to health. Foods, drugs, and cosmetics may be kept off the market, or their vendors may be prosecuted, when the product is adulterated. Such products are defined as adulterated under the law when they are poisonous or harmful, filthy, putrid, or decomposed, processed under insanitary conditions, processed from a diseased animal, packed in a poisonous or injurious container, or when they contain coal tar colors not certified to be harmless. Drugs which fail to meet the prescribed standards of quality or purity, or fail to disclose by how much they fall below the standard, are deemed adulterated. New drugs may not be marketed until the Government has had opportunity to check on them. Confectionary may not contain alcohol or any inedible substance such as toys or pennies.

Meats and edible meat products (from cattle, swine, sheep, and goats) not sold by farmers may not be marketed in interstate commerce unless the animals have been inspected for disease and wholesomeness by the Bureau of Animal Industry in the Department of Agriculture. Almost all canned shrimp, by voluntary arrangement, is packed under supervision of the Food and Drug Administration. These prior inspections of meats and canned shrimp for wholesome-

ness are unique. Most controls operate by sampling and corrective action after the commodities reach the market. There has recently been added a supervisory service for canned fruits and vegetables through which canners are enabled to certify on the label that the product has been packed under continuous Government inspection, and, if graded, that the grade shown is officially certified. The Agricultural Marketing Service which furnishes this supervision, also provides an inspection for health and condition of poultry for those who want to use it. The new food law also authorizes local emergency permit controls of food manufacturing and packing when conditions of contamination are found to exist. State and local governments control the marketing of various foods, especially milk and dairy products, providing for elaborate and often costly inspection of the sources of supply.

To a more limited degree governmental control of commodities provides pocketbook, as well as health protection. Food, for example, is banned as adulterated when it is unfit to eat, but it is also called adulterated when a valuable element has been removed from it, or something has been done to conceal inferiority or damage, or to make it appear better than it is. The tea law of 1897 with its unique Board of Tea Appeals, prior to termination of its appropriation in 1940, denied admission to the country of tea which failed to meet the standards of quality, purity, and wholesomeness. The primary purpose is pocketbook, rather than health protection.

Slowly, over a long time statutes have been creeping in on the rule of caveat emptor and buttressing and expanding the common law of fraud. Deception and misrepresentation are statutory offenses in several fields. Foods, drugs, therapeutic devices, and cosmetics may not be misbranded. They are misbranded, under the law, if the label is false or misleading in any particular, or if the container is so made, formed, or filled as to be misleading. In addition, a drug is misbranded when it is dangerous to health if used as prescribed on the label, and when it is not packaged and labeled as prescribed in the official compendium, if such a prescription exists.

The Federal Trade Commission Act rules against unfair and deceptive acts and practices in commerce, and against false advertising of foods, drugs, and cosmetics. The Alcohol Tax Unit of the Bureau of Internal Revenue is empowered to prevent false or misleading statements on labels and in advertising of liquors, wines, and malt beverages. The Post Office Department can prosecute those who use the mails to defraud their customers. The Securities Act of 1933 gives to the purchaser of securities a substantial right of action against those who issue or sell securities by means of false or misleading statements. In these and other ways the statutes protect against misrepresentation and deceit.

Misrepresentation is not accomplished by falsehood alone. It may result from inference and understatement. The half-truth can be more deceptive than the lie. Since 1933 Congress on three separate occasions has legislated against the half-truth. The Securities Act of 1933, the amended Federal Trade Commission Act, and the new Food, Drug, and Cosmetic Act, all define false or misleading statements in such a way as to penalize the failure to say all that is necessary to make those things that are said not misleading. Thus the laws protecting con-

sumers begin to reach the evasions of those who avoid the lie but fail to achieve accuracy.

In fact, if not in law, misrepresentation may be accomplished by withholding information about goods. Some statutes begin to offer protection to consumers against this. The Food, Drug, and Cosmetic Act and others require that certain descriptive facts be disclosed to the customer on the labels of products. Standard foods and drugs must be sold by their standard names. If they fall below standard, that fact must be stated. If they are not standard products, their ingredients must be listed on the label. If they contain artificial flavor, color, or preservative, the consumer is to be made aware of that situation, except when he is buying butter, cheese, and ice cream. Habit-forming ingredients and certain potent drugs must be disclosed on the label. Adequate directions for use, warnings against use under certain conditions, and precautions as to deterioration must also appear on drug labels. Under the alcoholic liquor law, classification and proof must be stated on the labels. Net weight of contents, name of manufacturer, country of origin, must be shown on these and other commodities. Statutory requirements of this kind do not by any means require that consumers be told all the important facts about the goods they buy. However, so far as they go, they put the burden upon vendors to tell the truth rather than leave the burden upon purchasers and the Government to discover misrepresentation and the half-truth.

Whatever Government does to promote the use of standards for consumer goods contains great possibilities of furnishing to consumers a still more direct form of pocketbook protection. Already much has been done along this line to enable industries to purchase goods more intelligently and to use materials more economically in their manufacturing operations. On the consumer front the Food and Drug Administration is empowered to define minimum legal standards for foods. Standards for drugs are available in the official compendiums and are the legal standards under the new act. Standards and grades for fresh fruits and vegetables, grains, tobacco, and cotton are available, but serve primarily the needs of wholesalers of those commodities. Quality grades for canned fruits and vegetables, meats, poultry, eggs, and butter are available under Government auspices, but the use of them in the sale of goods to consumers is both voluntary and infrequent. Standard classifications by which alcoholic beverages are to be described are drawn by the Alcohol Tax Unit of the Bureau of Internal Revenue.

Standards of weight and measure are maintained by the Federal Government for the use of such States, counties, and cities as choose to adopt them. Their usefulness to the consumer depends, however, entirely upon local law and local enforcement. Barrels and various kinds of baskets for fruits and vegetables are standardized by law, and some of these are the packages in which delivery is made to ultimate consumers. The Alcohol Tax Unit may prescribe standard sizes for liquor bottles.

The most far-reaching protection that Government can give consumers is enforcement of the antitrust laws. Consumers cannot buy commodities if they are not produced, and they will not care about false claims made about commodities which are priced out of reach. Quality protection also may be afforded by these laws. Holding new or better products off the market can be assailed if, as is often the case, it has been accomplished through conspiracy. There seems no

reason to doubt, also, that a conspiracy to degrade a product might be held to be in restraint to trade. While antitrust laws are directed against malefactors and against the prohibited practices, their service to consumers is far from a negative one if enforcement is sufficiently comprehensive and persistent to keep the channels of trade open so that productive and inventive enterprise can function at full speed. The positive protection to consumers that would result is an abundant supply of more kinds of goods, more cheaply produced and distributed, with encouragement to new and better ways of accomplishing such results. These are the basic factors in a higher standard of living without which all other aids to consumers can serve as little more than embroidery on shoddy cloth.

An additional protective function is the beginning that has been made to provide representation for consumers within the administrative framework of Government. Consumers have no general focus in the Government structure such as is given to commerce, labor, and agriculture. Specific recognition of consumers with relation to the farm program is provided administratively by the Department of Agriculture through the Consumers' Counsel. Statutory and independent representation of consumer interests has been provided by Act of Congress only once in history. The Consumers' Counsel of the National Bituminous Coal Commission was set up by law as an independent agency charged with the representation of consumers in the Government regulation of bituminous coal prices. He reported directly to Congress. By Executive order in 1939 this office was abolished and its functions transferred to the solicitor of the Department of the Interior.

Financial.—Most of the financial assistance given to consumers goes only to those who are eligible for classification in a relief status. W. P. A., N. Y. A., C. C. C., and F. S. A. aids are not consumer subsidies as such, but largely serve that purpose. Food-stamp and cotton-stamp payments are direct consumer subsidies designed to increase the consumption of designated kinds of foods and cotton goods. These, too, go only to those of relief status, except in one food-stamp experiment in Oklahoma. Low-cost Federal housing provides financial assistance to low-income consumers, as do also home owners' loans and the Government guarantees of mortgages on owned homes. Loans and the engineering and purchasing services provided to rural cooperatives by the Rural Electrification Administration furnish aid to the consumer side as well as the producer side of farm living.

Shortcomings in Consumer Services.

This itemized recital of the Government's services to consumers tends to enlarge beyond actual performance the picture of what is done. To provide correction, the following section notes the more significant omissions.

In the promotional field of service the most significant omission is that no specified agency of Government is authorized to promote consumer welfare generally or to lend such assistance to the consumer enterprise of money-spending as is furnished, with great elaboration, to the money-getting enterprise of industry, agriculture, and commerce. Every public official supposedly performs with due regard to the consumer interest, on the theory that the consumer interest is identical with the public interest which he serves. The theory, as already pointed out, is inaccurate; in practice what turns out is that

the consumer interest is disregarded as a matter of course in the legislative and administrative functions of Government. Promotion of the consumer interest requires more than acting "with regard to it"; it calls for research, fact finding, and publication to the end that this interest may be helped in pursuing its purposes and in assuming its proper place in that exchange and conflict of viewpoint which is the basic fiber of democracy. This is what Government promotional activities aim to do for the many economic interests that are recognized as having a claim upon Government for its services.

Such promotion of the consumer interest as issues from Federal Government sources is for the most part provided as a byproduct of some other purpose which the agency furnishing it is designed to serve. All of the work of the Bureau of Home Economics lies in the field of promoting consumer welfare, but it is supported as an adjunct to agriculture. The only regular reports on retail prices published by Government come from the Departments of Labor and Agriculture. The Agricultural Extension Service and the Farm Security Administration promote the consumer well-being of farm families. The money which pays for this work is part of the agricultural appropriation. It should be noted, of course, that consumers benefit greatly from governmental research in many fields, the direct purpose of which is to aid some form of productive enterprise.

Essential to promotional service are research and the reporting of current trends and developments. Fact finding for consumers by Government agencies is restricted in character and limited in amount. The Bureau of Labor Statistics reports on retail prices and the cost of living. The coverage given is more limited than its reporting of wholesale prices. It reports the changing trend of retail prices but performs no research by which consumers might be informed as to the reasons behind these trends and what they signify. Such background information, however, is published to a limited extent with respect to food prices by the Department of Agriculture. The Consumers' Guide is limited to subject matter directly related to authorized activities of the Department of Agriculture, though this may mean, and frequently does, that the story in which the consumer reader is interested must be cut in two and the other part left unwritten because it is derived from the work of some other agency, a fact which probably does not interest the consumer reader.

Information on what may be taking place in the Nation's economy that affects, or will in the future affect, the problems with which consumers are coping is not prepared or published by Government, although just such reports are published regularly and in great detail for agriculture. There is no current review of the state of business at the consumer level, as there is a review of business published by the Department of Commerce. There are no studies describing industrial activities relating to consumer interests as are published on the status of labor in many industries. The recent Consumer Purchases Study, supervised by the National Resources Committee, was the first major excursion of Government research into the facts of consumption and expenditure of personal incomes. It covered one period of 12 months more than 4 years ago, and no provision is made for keeping its facts up to date.

In the protective services which Government renders to consumers are many gaps. The control of commodities, as described above, ap-

plies only to foods, drugs, cosmetics, and therapeutic devices, and does more to protect consumers' health from injury than to protect their pocketbooks from loss. Commodities in other lines which are dangerous or injurious may be marketed, and so may commodities that are so worthless in character that their sale for any purpose at any price is necessarily fraudulent in effect if not at law.

In the control of representations made in the sale of goods a major defect is the limited extent of policing of unfair and deceptive practices. Government activities of this kind cover a very small part of the area in which consumers are exposed to such practices. Much of that field, of course, lies outside of Federal jurisdiction. Another major defect is that the laws fail, with some exceptions, to require that consumers be given even a minimum of essential information concerning the goods they buy.

To make such a requirement of law feasible, standards would be necessary. To date most standards evolved through Government process are designed for use in Government purchases, or in a manufacturing process, or in wholesale transactions. Many of the standards for farm products are designed primarily to aid the producer in his marketing rather than the consumer in his buying, and some of them are definitely unsuited to the latter purpose. Minimum standards now authorized for foods and drugs are serviceable to consumers. But a major gap with respect to foods is the lack of authority for establishing mandatory standards for quality grades above the minimum. Minimum standards tell the consumer the food is good enough, but tell him nothing about its relative quality. Such standards, it should be noted, apply only to descriptions used on the label or container. There is no requirement that they be used in advertisements. Grade standards are available for canned fruits and vegetables, meats, eggs, and butter, but the use of these in sales to consumers is voluntary and consequently infrequent. In short, the food standards that must be used provide only part of the information consumers need, while those that provide more useful information need not be used, and for the most part are not. For almost all other types of consumer goods no standards are regularly employed.

A beginning has been made by Government to define standards for containers, but here again the commercial buyer is served and the household buyer is neglected. Most of the standardized containers for fruits and vegetables are of sizes not purchased by ultimate consumers. Practically all of the containers in which consumers do purchase foods are not standardized, but on the contrary are manufactured in an array of shapes and sizes confusing to the careful buyer who wishes to compare costs of rival products. Deceptive containers, however, of foods, drugs, and cosmetics are banned under the new Food, Drug, and Cosmetic Act.

Another gap in consumer protection against deceptive methods of sale is the neglect of the Federal Government to exercise its constitutional power to fix standards of weight and measure. Apart from coinage weights, less than a score of such standards have received congressional approval during the Nation's history, many of these are for a limited purpose only, and only two or three bear any direct relation to consumer transactions. Likewise the Federal Government has left wholly to State and local governments the application and en-

forcement of the customary weights and measures. Throughout large areas of the United States practically no effort is made to see that consumers get pounds when they pay for pounds or yards when they buy yards. Through an additional sizable territory the policing of weights and measures is so fragmentary as to favor the probability that consumers will get less than they pay for. In the absence of adequate supervision of weights and measures, the force of competition is inevitably on the side of short weight, and absence of supervision is more the rule than the exception in this field of consumer experience.

The outstanding defect in the most valuable of consumer protections—the antitrust laws—is not what the laws fail to provide but insufficient appropriation with which to provide it. Although funds available to the Department of Justice for antitrust enforcement are from 4 to 6 times what were provided prior to 1936, the total seems small for the purpose in view. Of the \$1,325,000 appropriation to the Antitrust Division of the Department of Justice, probably not more than \$1,000,000 is available for antitrust enforcement as such, the remainder being required for enforcement of the many other laws which come under its jurisdiction. A sum of \$1,000,000 for keeping open the channels of trade of American industry and commerce promises little practical aid to consumers from that source when it is contrasted with \$5,330,000 for the Securities and Exchange Commission, \$6,800,000 for the Fair Labor Standards Act, \$4,600,000 for the Patent Office, and \$2,100,000 for the Bureau of Foreign and Domestic Commerce. In addition to the antitrust work of the Department of Justice, it should be noted that some part of the \$2,300,000 appropriation of the Federal Trade Commission is expended on actions against restraints of trade in violation of the provisions of the Clayton Act and the Federal Trade Commission Act.

Finally, among the protective services, should be the provision for specialized personnel to represent the interests of consumers in governmental procedures. As the Government assumes increasing responsibilities in the Nation's economic affairs, an increasing number of administrative determinations are made which decide issues as between consumers and other economic interests. Whatever the tradition of public office may be, the actual exercise of administrative discretion in matters affecting the wealth and income of various groups is bound to be conditioned by the ability of those groups to impress their particular wishes upon the administrative agency. Consumers enter that arena under the basic handicap that many such determinations are made by Government agencies which by name and tradition and as a condition of appropriation are held accountable for service to a particular economic interest. For example, determination of the balance of interest between producers and consumers of fluid milk is assigned to the Department of Agriculture in its power to fix prices which milk distributors shall pay to producers. Consumers face the further handicap that, being unorganized, they cannot send representatives to the council table where administrative determinations are informally but forcefully discussed.

There is no consumer establishment in Government in the sense there are farm, labor, commerce, investor, mining, oil, bituminous coal, merchant marine, and fish and wild life establishments. As already noted, the independent consumer representation once provided for by Congress with reference to Government fixing of bituminous

coal prices is now vested in the Department of the Interior which determines those prices. In the Department of Agriculture the Consumers' Counsel, existing only by virtue of administrative order, expresses opinions only to officials within the Department on the consumer aspects of decisions made in administering the farm programs. Many governmental agencies render services or administer regulations for the general public welfare, but without specialized attention to the consumer phases of that welfare. Ultimate consumers are not, for example, deemed parties at interest in a proceeding before the Interstate Commerce Commission on the raising of railroad tariffs. Nor does any Government agency appear on their behalf, except formerly in cases involving rates on bituminous coal for which the National Bituminous Coal Act authorized the Consumers' Counsel of the Bituminous Coal Commission to appear and be heard. Farmers, however, as shippers or receivers of railroad freight may be represented in I. C. C. hearings by the Secretary of Agriculture or his agent, because Congress has specifically authorized such representation of farm interests.

As there is no one Government agency charged with the duty of giving independent representation to the interest of consumers in administrative procedures, likewise there is no source to which Congress can turn for informed counsel on the consumer aspects of proposed legislation, should it desire to do so. The increasingly complex character of economic legislation has made it the usual practice of congressional committees to refer pending bills to the executive department or administrative agency competent in the field to which the bills relate. The bearing of many measures upon the interest of consumers may also be a question for expert analysis, since casual examination will not always reveal what its consumer effect will be. In the legislative as in the administrative process advancement of the general welfare is always the primary purpose in view, but the average citizen as a money spender sometimes pays dearly for advancement of his general welfare at the expense of his consumer interests.

This bill of particulars on what the Federal Government omits from its service to consumers suggests that at least passing mention be made of Government measures, both State and Federal, which work definitely against the interest of consumers. Trade-barrier laws and regulations of many kinds have been much publicized in recent years. They are special instances, operating at State boundaries, of the power of some interests to prevail upon legislatures to use their public power for private purposes.¹⁵ Other laws, such as those which legalize artificial pricing, are adopted as a means of settling commercial disputes rooted in competitive inequalities. Still others, like the local measures enacted to safeguard the sanitary quality of milk, may embody a necessary public service but restrict trade and burden consumers beyond what is necessary to accomplish their primary purpose. Laws of this kind provide illustrations of a general principle. Because consumers do not have that degree of organization which compels consideration of their interest at every stage in the governmental process, they stand to suffer injury from governmental actions, which, though not directed against them, overlook their interest and let the burden fall upon them simply as a by-product of the producer purposes which the actions are intended to serve.

¹⁵ See ch. VI, *supra*.

CHAPTER XVI

FISCAL POLICY AND TAXATION¹

FISCAL POLICY

Current Controversies over National Fiscal Policies.

Recent years have witnessed a greater expansion in Federal expenditures, taxation, and borrowing than ever before, except in times of war. It resulted originally from the distressing impact of the depression on entrepreneurs, farmers, home owners, industrial wage earners, and even State and local communities. Such was the plight of these groups that the Government came to their rescue in order to prevent general economic and financial chaos. It extended loans to business and property owners saddled with heavy debts and threatened with bankruptcy; disbursed large sums in benefits to farmers, and for the relief of the unemployed; and launched a vast program of Federal or Federally aided public works to provide employment to millions of workmen.

The Government financed these large outlays in a manner expedient at the time—by borrowing. Had it done otherwise and resorted instead to taxation, it would have imposed serious hardships on business and consumers, aggravated the depression and so nullified the salutary effects of its expenditures and loans, without securing all of the necessary funds. By borrowing the money, the Government avoided these deflationary effects for it used money which otherwise would have remained idle, for neither private enterprise nor the States and municipalities were willing or able to employ it.

In making these large outlays and borrowing these vast sums, the Government expected, however, that it would not only relieve immediate distress and stop the spiral of deflation, but also stimulate recovery. In a word, it was believed that the depression responsibilities of Government were largely temporary and that it would be able eventually to curtail expenditures and restore budgetary balance within a short period.

The depression, however, proved to be no ordinary one. Though business did respond to the spending and lending activities of the Government, its response did not result in full recovery. What is more, when as in 1937, the Government sought to retrench on its relief and public works expenditures and at the same time to increase

¹This chapter is the product of close collaboration among the following persons: Dr. Dewey Anderson, executive secretary, Temporary National Economic Committee; Dr. Paul Studenski, professor of public finance, New York University; Dr. Gerhard Colm, fiscal expert, Bureau of the Budget, Washington; Dr. Richard V. Gilbert, Director, Defense Economics Section, Price Stabilization Division; and Clifford Hynning, senior economic analyst, Price Section, Price Stabilization Division, Office for Emergency Management. In addition to the expert knowledge of the authors, it is based on the series of tax monographs of the Temporary National Economic Committee, especially Monograph No. 3, *Who Pays the Taxes?* by Gerhard Colm and Helen Tarasov; Monograph No. 9, *Taxation of Corporate Enterprise*, by Clifford Hynning; and Monograph No. 20, *Taxation, Recovery, and Defense*, by Dewey Anderson.

taxes on consumers, business activity relapsed. Consequently, the Government was unable to abandon its newly assumed social and economic responsibilities without causing widespread hardship and risking the possibility of another business collapse.

This failure of the national economy to achieve full recovery has led certain economists to believe that full employment can be realized only through the initiation by the Government of enlarged programs of public works outlays on a permanent plan. According to this view, private investment opportunities have lagged behind private savings not only during the depression, but as early as the turn of the century, due to a gradual slowing down in the growth of the national economy attendant upon its achievement of a high degree of development in some of its most basic industries. Both the occurrence and persistence of the depression are attributed in part to the failure of investment outlets to develop in sufficient volume to absorb private savings. So long as this disparity between saving and investment continues, say these economists, business will be unable to employ all of the productive resources of the country and to maintain production and consumption in balance. This result can be attained only if the Government embarks upon a permanent program of substantial capital outlays, financed sometimes by borrowing and sometimes by taxation, so as either to put to work idle private savings and maintain a high level of national income, or to absorb idle savings through progressive taxation.

It has been contended by these same economists that the maintenance of the national economy in any degree of balance will necessarily require that the Government, in the future, consciously apply its taxing powers in a way to check any undesirable concentration of wealth. At the same time, cyclical variations in business activity make it necessary that the Government pursue a flexible fiscal policy. This would involve, during periods of depression, the expansion of its economic and social welfare expenditures and borrowings and the reduction of taxes on consumption, and, during periods of prosperity a reverse policy, namely the contraction of these expenditures and borrowings, increased taxes of a progressive character, and the repayment of its debts.

It is freely admitted by these economists that such a fiscal policy, by proposing extensive positive intervention by the Government in the economic processes of production and distribution, constitutes a wide departure from the traditional concept of neutral fiscal policy presumably pursued by the Federal Government in the past. But, this departure, it is contended, is a necessary adjustment to the profound social, economic and political changes which have taken place in the last decade or more not only in this country but in the world as a whole. In the face of these changed conditions, it is maintained that such a fiscal policy is essential, if we are to save the democratic institutions of this country from destruction and enable private enterprise to flourish; and that the only alternative is the institution of direct regulation by the Government of business enterprise which would be much more restrictive in character.

Many people have viewed with concern the recent great expansion of the economic activities and fiscal operations of the Federal Government, especially the suggestion that this expansion may become permanent. In their opinion, it has paralyzed business initiative by undermining the confidence of businessmen in the soundness of the eco-

conomic order. They have demanded, therefore, a reversal by the Government of its existing tendencies, the immediate curtailment of its spending and borrowing activities, and the quickest possible return to a balanced budget, maintaining that therein alone lies the possibility for a complete restoration of business confidence. They have denied the existence of any such slowing down in the long-time growth of the American economy and any such long-run insufficiency of investment opportunities as would justify a permanent extension of the investment activities of the Government. They have strenuously objected to Federal ventures into the fields of electric-power development and housing. They have urged consistently the return by the Government to its traditional economic and fiscal policies and strict adherence thereto in the future. Failure to take such steps, they have declared, will result in the continuance of the business depression, the eventual bankruptcy of the Government and the complete collapse of the national economy.

Objections also have been raised to the recent expansion of Federal activity and spending on the ground that it represents a dangerous trend toward the centralization of government and a transference of control over State and local affairs to a remotely located Federal bureaucracy.

With the initiation of our national defense program, this controversy over Federal fiscal policy has been somewhat modified in its emphasis. In this case at least, there is little or no questioning of the need for the expansion of Federal fiscal operations. Yet even here vital differences, essentially similar to those just reviewed, have developed among economists and citizens generally regarding the character of the fiscal policy to be pursued. It is proposed by some that the Government should continue with its efforts to maintain and expand private and public civilian production, at the same time it is attempting to increase military production in the quickest manner, so that all the labor and other resources of the country not required at the moment for national defense be productively employed. Others propose that the Government abandon or sharply reduce its public works and relief expenditures on the ground that the defense program soon will absorb the unemployed.

The first school of thought favors: (a) Financing by the Government of the bulk of its defense expenditures in the beginning by borrowing and progressive taxation, so as not to interfere during this period with business recovery, and (b) the resort to taxation limiting consumption only if and when full employment of the productive resources of the country has been achieved and when drastic reductions in civilian consumption and shifts from civilian to military production have become necessary. Moreover, this school of thought proposes that progressive rather than regressive taxes be relied upon until such time as consumption has to be curtailed.

The second school of thought, however, favors the immediate resort to severe taxation, both regressive and progressive, and the curtailment of Government borrowings in the belief that such a course would improve the financial condition of the Government and save its borrowing power for the defense emergency.

These current controversies over national fiscal policy embrace questions which are of fundamental importance to the well-being of the whole economy. Nevertheless, they are not a new development.

They are rather the continuation of a broader issue which has run through the entire course of our history as to what should be the scope of the activities of Government in our society and the extent to which Government should be allowed to influence or participate in economic activity.

Gradual Expansion of Scope of Governmental Activities and Finance.

The considerable expansion of the functions of Government in the social and economic spheres and in the scope of its fiscal operations, which have occurred in this country over the past 150 years, reflects primarily significant changes in the structure of the American economy. The pattern of expansion is largely that of the development of a country from a simple and loosely organized agrarian state into an extremely complex and closely knit industrial nation.

In the earlier stages of this country's growth most social and economic services generally were supplied by local governments and private institutions. Gradually, however, with the breakdown of localism and the growing national character of the economy many such functions were assumed first by the States and then by the Federal Government, because of the greater ease with which they could be administered and financed upon these broader levels. This shift of responsibilities from lower to higher jurisdictions, however, has not resulted in a complete centralization of governmental activity and finance, for generally the lower jurisdictions of government after such shifts assumed new responsibilities or exploited the remaining ones much more intensively. This general trend has been somewhat interrupted, however, by wars which have caused Federal activities and finance to expand greatly for temporary periods and to contract sharply during the succeeding years.

From 1789 to 1860 the functions of Government were extremely limited. With agriculture the predominant form of economic activity and with the population largely scattered through the countryside, there was little need for the Government to provide extensive social services. Business enterprise was essentially small-scale and local in character and required little or no regulation. The country, with its vast undeveloped resources, abundance of free land, and scarcity of labor, afforded wide economic opportunities to all.

Taxes during this period were levied mostly on property, imports, and business occupations, and were imposed at proportional *ad valorem* rates, thus conforming with the prevailing notion that Government should occupy a neutral position with regard to the production, accumulation, and distribution of wealth. Except for the purchase of the Louisiana Territory, Federal borrowing was limited to the financing of war and temporary budgetary deficits. State borrowing flourished only for a short while as a result of the brief experiments in State ownerships described above and was soon severely restricted by State constitutional amendments. Both taxes and public debts during this period were very low.

Between the Civil and the First World Wars the structure of the American economy changed fundamentally from a predominantly agricultural country into one of the world's foremost industrial nations. Population grew tremendously, concentrating to a great extent in urban areas. The frontiers began to close, business enterprise became large-scale and national in scope, and the struggle between labor and capital began to crystallize.

In the face of these changed conditions, Government necessarily had to enlarge the scope of its operations. The city governments more than any others felt the impact of the growth of population and the expansion of industry. In response they had to provide a vast array of services, to impose higher taxes and incur debts to finance them.

With the growth in business activity, State governments had to extend considerably their regulatory functions. They assumed, however, very few additional responsibilities in the field of social service, preferring instead to leave these responsibilities to the counties and local communities to discharge. State expenditures during this period, therefore, increased only moderately, requiring but a slight expansion in State taxing sources and scarcely any resort to State borrowing.

The Federal Government likewise found it necessary to expand its regulatory functions in order to control the many types of businesses which had become interstate in character and which could no longer be successfully controlled by the States. At the same time it had to extend both direct and indirect aids to business and agriculture in the form of high protective import duties for the benefit of domestic manufacturers, grants of land and loans of money for the benefit of railroads, purchases of silver for the benefit of the western mining population, and outlays for improvements of rivers and harbors for the benefit of business interests in various parts of the country. Most of these subsidies, however, involved no actual expenditures of funds and necessitated only slight increases in taxation.

Only at the turn of the century did the Federal Government really begin to broaden its activities to include not merely aids to business but also to better the general social conditions. Under the reforming zeal of Presidents Roosevelt, Taft, and especially Wilson, important social and economic reforms which ran counter to the prevailing laissez-faire philosophy of political economy were introduced. Measures were enacted to protect consumers against harmful foods and drugs. For the first time in more than half a century tariffs were reduced and simultaneously progressive income taxes were introduced. A beginning was made in Federal labor legislation with the enactment of the Clayton Act which was intended to exempt trade unions from the provisions of the Sherman Act. Machinery for the mediation of labor disputes in the railway industry was established and control of working conditions of employees on American ships was instituted. The Department of Labor was organized and the Children's Bureau established. The conservation of natural resources was vigorously pressed, provision being made for the reclamation and irrigation of desert areas, the effective control of national forests, and the preservation of valuable mineral lands. Finally, in the field of economic reform, antitrust legislation was tightened, the powers of the Interstate Commerce Commission were strengthened and the Federal Reserve System was established to provide greater governmental control of banking in the public interest and more adequate credit facilities in all parts of the country.

Almost to the very end of this period the Federal revenue system, consisting largely of liquor and tobacco taxes in addition to customs duties, was able not only to take care of the interest payments on, and the liquidation of, the relatively huge Civil War debt, but also to cover the costs of the various moderate extensions of Federal activity. Fed-

eral credit had to be exercised during this time only for the financing of temporary deficits occasioned by a decline of revenue during periods of depression, and for the financing of such self-liquidating undertakings as the extensions of loans to railroads and the Federal land banks, purchases of gold and silver, and the construction of the Panama Canal.

Property and commodity taxes, with a sprinkling of business excises, continued to be the chief sources of governmental revenue for the entire period. Local governments exploited the property tax, State governments the property and business license taxes, and the Federal Government the commodity taxes. Only toward the end of the period did the Federal and some State Governments resort to progressive personal income and inheritance taxes and to proportional business net income taxation, and then only on a mild scale. By the end of this period the total tax burden amounted approximately to only 6.5 per cent of the national income, and the total public debt, although larger in amount than at the beginning of the period, actually constituted less of a burden.

Following the entrance of this country into the World War, the functions and responsibilities of the Federal Government, particularly in the economic sphere, expanded tremendously. Direct Federal control was assumed of the railroad, communications, shipbuilding and shipping industries. A system of national employment exchanges was established and millions of dollars of Federal funds were expended to provide needed housing facilities for workers engaged in war industries. Federal agencies were established to provide for the best possible coordination of trade and industry, to foster amicable employer-employee relationships, and to control the prices and production of essential raw materials and foodstuffs. In short, the Government entered upon almost every sphere of private economic endeavor. To finance its expanded activities the Government borrowed funds on an unprecedented scale and raised the rates of its newly introduced progressive taxes to unanticipated heights.

With the cessation of hostilities public and, in particular, business pressure soon brought about a rapid withdrawal of the Government from these extended fields of economic activity. Nevertheless, the capacity of the Government successfully to assume vast responsibilities and effectively to engage in activities hitherto regarded as the domain of private enterprise was definitely proved. Thus a precedent was established for the assumption of these responsibilities by the Government in times of emergency. In addition, the war revealed the great revenue potentialities of progressive income and inheritance taxes, and so prepared the way for the extensive utilization of these taxes for socially desirable purposes during peacetime periods as well. Finally the successful flotation of billions of dollars of war loans served to reveal the great borrowing potentiality of the Federal Government and to establish a ready market for future issues of its obligations.

While Federal activities contracted after the war, State and local functions greatly expanded. Many State and local responsibilities had been held in abeyance during the war and once the emergency was over the public demanded the extension of educational and other social services. At the same time the development of motor vehicle transportation made necessary a great improvement in roads, and the boom

in private housing construction made necessary the extension of new municipal services to previously undeveloped urban and suburban areas.

Since local rural governments were neither administratively nor financially equipped to undertake the difficult job of reconstructing the rural roads to make them suitable for motor vehicle travel and of organizing the type of educational and social services that were demanded by the people, it became necessary for the States to undertake a large part of this responsibility. As a result, States, counties, and other local governments embarked upon a large-scale program of capital outlays for the construction of highways, schools, hospitals, parks, parkways, playgrounds, and other facilities. At the same time a number of local governments began to experiment with public ownership of gas and electric plants and street railway systems.

The scope of Federal activities changed little, however, during this time. The Federal Government was concerned mainly with the repayment of its war debt, the collection of debts owed by its former Allies, the contraction of its expenditures, and the reduction of its tax levies. The only new social and economic responsibilities assumed by the Federal Government during this period were the subsidizing and even the actual ownership and operation of steamships; the extension of grants to States for the construction of roads considered of national importance; the establishment of a comprehensive system of agricultural credit financed in part from Federal funds; and toward the end of the 1920's the establishment of the Federal Farm Board "to promote the effective merchandising of agricultural commodities and to place agriculture on a basis of economic equality with other industries."²

During the period, the personal and corporate income and estate taxes were productive of substantial revenues despite the grudging acceptance of the principle of progressive taxation by the business community, the successive reductions of the high wartime rates of progression of these taxes, and the existence of many loopholes in the tax laws. New taxes on business were introduced by States, but there was great hesitancy to exploit this form of taxation for fear of interfering with the operations of private enterprise. Motor vehicle and gasoline taxes also made their appearance and soon became one of the most important sources of State revenues used mainly to finance the construction and maintenance of highways. The general property tax continued to be the chief source of local revenue and yielded large sums as a result of increases in the assessed valuations of property and additions of newly constructed buildings to the tax rolls. Local revenues were also substantially augmented by State aid and the distribution to localities of shares of the proceeds from certain State-collected taxes. The total tax burden, which before the war amounted to 6.5 percent of the national income, rose during the war to 12 percent and remained at about that level throughout the 1920's. While the Federal Government was reducing its large war indebtedness, the State and local governments because of their huge capital outlays went extensively into debt. The opposing trends practically canceled each other with the result that the total public indebtedness in 1930 was about the same as it was at the end of World War I.

² Preamble to the Federal Farm Board Act.

Fiscal Policies of the Depression.

The first 2 years of the depression were marked by an almost complete absence of positive steps to revive business. The State and local governments, with their limited and strained resources, merely tried as best they could to cope with the rapidly mounting distress of the unemployed. The Federal Government did not concern itself with this problem, however, as it appeared to fall in the field of poor relief which traditionally was a purely State or local responsibility. For the time being the Federal Government concluded that it would contribute most to business revival by restoring balance in its budget and thus giving evidence to businessmen that its finances were being conservatively and soundly managed. Accordingly, in the fall of 1931, it was proposed that Federal expenditures be drastically reduced and at the same time its revenues be increased by the imposition of a manufacturers' sales tax. These proposals, however, met with strong opposition.

As conditions became progressively worse, public clamor arose for more direct and positive intervention by the Federal Government to relieve the distressing economic situation. In response to this public insistence the Reconstruction Finance Corporation was established early in 1932 as a lending agency to make loans primarily to financial institutions, railroads, and other business enterprises in distress. This aid, it was believed, would trickle down into the other segments of business and stimulate recovery generally. At the same time this aid was expected to strengthen the weakened financial structures of the Nation's more important business institutions, and thus to lay the foundation for economic recovery by promoting business confidence.

This initial step was inadequate to combat the severity of the depression. As the public called for more energetic action the Hoover administration in the summer and fall of 1932 and later the Roosevelt administration in 1933 found it necessary to depart further from the traditional Federal fiscal policy. At first this departure took the form of a great expansion of the operations of the Reconstruction Finance Corporation. At the same time Congress sharply raised the rates of taxes applicable to the well-to-do. When economic conditions failed to improve and the State and local governments proved unable to cope with the problem of the unemployed, the new administration assumed the initiative itself of directly disbursing huge sums of money instead of merely placing funds at the disposal of business in the expectation that this would be sufficient stimulus to business recovery. In this way the Government sought (1) to furnish direct aid to the unemployed, distressed farmers, and home owners and (2) to stimulate recovery by increasing the purchasing power of the consuming public.

Effect of Federal fiscal policies of the 1930's.—The fiscal policies of the Federal Government during the 1930's cannot be evaluated solely in terms of their success in ameliorating the rigors of the depression and stimulating business recovery since these policies supported a great number of significant economic and social reforms of a permanent character involving substantial outlays of money. Most of these reforms, which undoubtedly represented a great forward step in the direction of remedying many of the economic ills

of the past, had been long overdue. In the sphere of economic reform, suffice it only to mention the Banking Act of 1933, the Securities and Exchange Acts, the Public Utility Holding Company Act, and the provision of facilities to extend low-cost credit to home owners and farmers. In the field of social reform even more desirable and sweeping objectives were realized. These included the National Labor Relations Act, the establishment of an extensive system of old-age and unemployment insurance benefits, provision for low-cost housing, reduction of farm tenancy and mortgage relief, the establishment of the Civilian Conservation Corps and other aids to youth, and provision of many new services to meet the cultural needs of the people. The defrayment of the costs involved in these social and economic reforms represented an important positive contribution of Federal fiscal policy.

The fiscal operations of the Federal Government were eminently successful in relieving the great amount of distress occasioned by the depression to both individuals and business. In addition, they were equally effective in bringing about a substantial degree of general economic recovery, raising business activity well above the depression lows. Between 1932 and 1937, the Federal Reserve Board index of industrial production rose from 64 to 110, while the index of cash income from farm marketings increased from 42.5 to 75. As a result, the national income rose from \$40,000,000,000 in 1932 to \$70,000,000,000 in 1937, or more than 70 percent. This was a real and not merely a nominal increase in the national income as indicated by the fact that the cost-of-living index during the same period increased only from 77.9 to 88.6.

Despite the fact that by 1937 a substantial degree of economic recovery had been achieved, unemployment remained at a high level. To some extent this condition was the outcome of great technological advances in industry which made possible considerable increases in production without corresponding increases in the number of employed workers. Thus even though the index of industrial production rose between 1932 and 1937 from 64 to 110, the index of employment in manufactures rose during the same time only from 65.5 to 99.3. While the insufficient recovery of the heavy goods industries was the primary cause of continued large-scale unemployment, these technological developments which operated throughout industry in general were important contributory causes.

Many diverse reasons have been advanced to explain why full recovery failed to develop despite the creation of favorable conditions by large-scale Federal expenditures. The belief that widespread and excessive governmental business controls completely had hemmed in and destroyed private initiative enjoys wide currency. According to this view, the controls exercised by the Securities and Exchange Commission, the National Labor Relations Board, the Minimum Wage and Hour Division and similar agencies, in combination with onerous income and business taxes so restricted the opportunities for profits as to make investors extremely hesitant about making long-time capital commitments, in the absence of which complete recovery was not possible.

However, these so-called restraints contributed to rather than restricted business recovery. For they eliminated the causes of many of the abuses of business which in part at least were responsible for its

collapse and which after 1929 were responsible for a feeling of public distrust in the soundness of our business structure. The continuous rise of economic activity from 1933 to 1937 clearly indicated that these "restraints" did not confine legitimate business expansion. In whatever field demand existed, sharp increases in business activity and profits developed. It is evident that if the other necessary underlying conditions had been present, these "restraints" would in no way have prevented full recovery.

Somewhat less widely held as an explanation for the failure of full recovery to develop is the thesis that there existed in the economy a lack of investment outlets for private savings. According to this view some of the more important elements in our economy which in the past operated to provide such outlets were no longer present, and no new outlets of sufficient consequence appeared to replace them. During the nineteenth century a great demand for savings was created by the need of business for capital to exploit the country's vast undeveloped resources. By the time of the World War, however, this outlet largely dried up. Economically, the United States had now come of age in the sense that the period of the purely extensive development of its resources was almost at a close. Most of the country's basic industries such as agriculture, rail transportation, communications, iron and steel, coal and textiles, which had provided the momentum to industrial expansion during this entire period had now been developed to a point where they were capable of meeting the broader needs of the economy and so no longer could absorb large amounts of savings.

Possibilities for the future development of the country, however, were not at an end. On the contrary, a period of intensive utilization of our resources was just beginning. This intensive economic development, with a shift in emphasis from capital goods production to consumers' goods production chiefly designed to raise the standard of living, provided new outlets for savings after the war. Chief among these new outlets were the great housing boom, the tremendous expansion of the automobile and related industries, and the exports of capital to European and South American countries for post-war reconstruction and industrial development. Concurrently, large sums were borrowed and expended by the State and local governments for highways and educational and institutional facilities. Consequently, the volume of capital outlays continued on a large scale until 1930, so that the economic system was able to maintain a high level of income and employment.

By 1930, it is said, most of these outlets for savings had begun to dry up. The automobile and related industries had attained a high state of development, the housing boom had run itself out, and loans to foreign countries came to an end. At the same time the development of new industries was not of sufficient magnitude to absorb all available savings. In addition, great technological advances now enabled American industry to provide for a substantial increase in its productive capacity by using funds originally intended merely to provide for the replacement of worn-out equipment. These developments, more than any others, are said to be responsible for the failure of business to achieve full recovery during the 1930's.

It is not suggested by the more careful exponents of this lack of investment, or "maturity", theory, that the national economy has

reached its maximum development and that no opportunities exist for its expansion in the future. On the contrary, it is contended by them that the national economy has come into the possession of all its powers and should be able to achieve its greatest development if it organizes these powers effectively. Unfortunately, however, this theory has been rather widely misunderstood. The term "mature" was interpreted by some to mean "senile," and consequently vigorous protests were made as to the validity of this theory.

This theory of a transitional lack of investment opportunities seems to afford a partial explanation for the persistence of the depression of the 1930's and for the failure to achieve full recovery. Other factors responsible for the incompleteness of the business recovery were the political and economic dislocations of the world which had deprived us of some of our foreign markets and opportunities for investment of our capital abroad; and the unwarranted apprehensions entertained by businessmen regarding the probable effects of the policies of government on business.

Objections to expansionist fiscal policies.—Notwithstanding their apparent stimulative effects, the Federal administration's expansionist fiscal policies have been bitterly opposed. The objections have come, for the most part, from businessmen and the larger propertied interests, who feared that the consequent rapid increase in the Federal debt would bring in its wake a runaway inflation, the collapse of investments in bonds and mortgages, onerous taxation for many years to come, the destruction of property values generally, and eventually national bankruptcy.

This fear of inflation and heavy future taxation was unfounded, however, and was based upon a wholly inadequate comprehension of the operations of our national economy. Those who entertained these fears failed to recognize that as long as private enterprise had large unused productive capacity and was capable of meeting increased demands of consumers, the enlarged expenditures of the Government could not possibly produce inflation. They observed only the quantitative aspects of the Government deficits and debts, and completely overlooked or ignored their qualitative aspects. Had they examined the latter they would have discovered that the deficit operated as an instrument for the investment of idle savings and the consequent restoration of balance in the private sector of the economy, and that, at the same time by stimulating recovery, the deficit was actually producing the very means for the payment of the resulting interest costs and a foundation for the eventual amortization of the debt.

In their apprehension over future heavy taxes, the critics of the expansionist fiscal policy overlooked the fact that growing public debt and taxes have never held back our economic development in the past but on the contrary have contributed to it. Misapprehensions concerning our past and present fiscal policies have their foundation in the inadequate conception of the public economy as an organization completely removed from the productive system proper. So long as the critics of expansionist fiscal policies fail to recognize that the public economy is just as much a part of the productive system as private enterprise, they will continue to misunderstand these policies and to entertain unwarranted fears concerning them.

Those criticizing the Federal Government for increasing its indebtedness completely overlook the fact that this increase has afforded financial institutions and private savers almost the only means available for safely investing their idle funds at interest, since neither the State nor local governments nor private enterprise were issuing new obligations at the time. They fail to recognize that the increase in the Federal indebtedness performed a useful function in the national economy by thus sustaining private capital.

Critics of Federal fiscal policies have consistently concerned themselves only with the increase in the absolute size of the debt. However, they ignore for the most part the fact that the interest payments, which alone are of importance in the immediate sense, have by no means increased correspondingly. An examination of the figures reveals that as a result of a substantial decline in interest rates and the expansion of the national income the interest charges on the increased Federal debt were extremely moderate. In 1930 these payments amounted to \$659.4 million or 0.9 percent of the national income; in 1939 they amounted to \$940.5 million or only 1.36 percent of the national income.

Another supposedly basic criticism of Federal fiscal policies was that they so increased the immediate tax burdens on business as to make investors extremely unwilling to risk their savings on new ventures. This objection, however, as shown in T. N. E. C. Monograph No. 20, did not accord with the facts.

The expansionist fiscal policy of the administration was also opposed on the grounds that it involved wasteful expenditures of money. Those advancing this criticism implied that if the money in question had been left in private hands, it would have been spent much more productively. Their assumption was false for it presumed the existence at the time of vast opportunities for the investment of private funds and the complete utilization by industry of the economic resources of the country. Had this been the case, any great increase in public expenditures as took place might have constituted a diversion of funds from private enterprise. However, there was no competition between the public and private sectors of the economy over existing resources. Private economic activity had shrunk and the expansion of Federal activity merely took up this slack. Governmental expenditures put to use labor, plant, and equipment which otherwise would have remained idle. From an economic and material point of view these expenditures of the Government represented a net gain to society.

Expansion and Reorientation of Production for National Defense.

The initiation of the national defense program in 1940 modified substantially the objectives of the Federal Government's fiscal policy. During the depression fiscal policy aimed at the promotion of a higher level of economic activity. Now it aims at a maximum expansion of our existing productive facilities. Our economic system must be geared to the production of huge quantities of planes, tanks, ships, and guns—all the matériel of war. The production of such materials on an adequate scale requires more than the use of a large fraction of existing productive capacity; it requires as well the expansion of that capacity to the limits set by our resources.

Economic expansion is imperative from the standpoint of national morale no less than from the standpoint of our need for war matériel. The morale required to resist or to wage total war cannot be built on the basis of widespread unemployment and insecurity. The contrast between employment provided by totalitarian states and unemployment permitted under the democracies is striking. The experience of France indicates that a democracy cannot hope to survive if it fails to provide its citizens economic security as well as freedom. It must provide both. So far as we are concerned, this means that we must do away with unemployment as a matter of national defense.

It is frequently argued that it is far more important to divert resources from nondefense to defense production than to try to increase defense production by using idle resources. This contention is for the most part without merit. With regard to the production of most facilities required for both defense and nondefense purposes, such as strategic highways and airfields, the resources available are so ample that defense requirements can be satisfied without the curtailment of civilian demand. Here, therefore, is a clear case for the immediate expansion of production and employment.

The resources available for employment in the production of these facilities cannot be effectively and immediately shifted to the production of commodities which have already become scarce. If these resources are not used in those fields of production in which they are now available, they will not be used at all. Failure to expand production in these fields will not merely be wasteful, but—what is much more serious—it will entail a permanently lower defense potential than lies within our grasp. For later on the labor and materials so employed probably will have to be shifted to provide for the expansion of industries in which capacity already appears inadequate. At such time it will no longer be possible to spare them to meet less urgent defense needs. In short, it will be impossible then to build strategic highways and airfields because the resources necessary for such construction will, at that time, be required to produce more important war materials. Consequently, if we do not build these things now, we may not be able to build them at all.

The same proposition holds true for those industries which more directly minister to the needs of consumers, such as production of food, clothing, and housing. Here, in general, operations are far short of capacity, and resources which cannot be used in the defense program in the near future are available to raise the standard of living. Sometime in the future the expansion of production for defense may require a volume of resources in excess of the available supply. At such time, curtailment of civilian consumption will be necessary. But this fact does not justify the failure on our part at the present time to use our existing idle resources for the satisfaction of present wants. The higher our standards of living are today, the greater the reserves of strength and morale upon which we shall be able to draw if the occasion requires.

On the other hand, in those industries in which defense and civilian demands together exceed available productive capacity, such as those producing steel, aluminum, and machine tools, steps must be taken not only immediately to curtail civilian consumption, but at the same time also to expand the productive capacity of the industries involved.

The materials released by the curtailment of consumption should be used not only for the production of more defense material, but also to expand our productive capacity in the areas of scarcity. Thus, for example, production of automobiles for civilian use should be restricted so that the steel released could be used to increase the productive capacity of the steel industry itself or for the production of additional machine tools and other producers' goods for defense purposes. In this way the expansion of productive capacity in steel and allied industries where shortages now exist can be obtained without interfering in any way with the current output of tanks, airplanes, shells, and other defense matériel.

The use of priorities and the curtailment of civilian demand, however, unless coupled with an expansion of productive capacity, inevitably entails the freezing of production and employment at existing levels. The use of these devices is justified, therefore, only for the short period and only in view of the fact that the expansion of productive capacity and the training of skills require time. Coupled with priorities and rationing to limit the demand there must be a vigorous effort to expand productive capacity and to train the skills required.

Prevention of inflation.—When full utilization of resources is reached, further expansion of defense production will be possible only by diverting resources from nondefense to defense uses. Such diversion can be effected through inflationary financing, taxation, increased national saving, or rationing.

Under inflationary financing, the Government obtains additional credit from the banks, or resorts to the printing of more currency, or both, thereby increasing the total amount of active money and credit in circulation. Since the total quantity of goods and services available in the market remains the same, however, the increase in the quantity of money and credit available for their purchase merely results in the bidding up of prices. The Government, with its additional purchasing power, is able to produce goods and services even though prices have increased. Private individuals engaged in business who earn larger profits as a result of the higher prices are usually able to obtain as large supplies of goods and services as they did previously inasmuch as they can afford to pay the higher prices. Persons with fixed incomes and the wage earner whose compensation does not increase as rapidly as prices, however, are compelled to curtail their purchases.

Thus, inflationary financing diverts resources from civilian to defense uses mainly by forcing wage earners and recipients of fixed incomes to curtail their consumption. In the meanwhile, the rise in prices increases the costs of defense, making it necessary for the Government to obtain still larger amounts of purchasing power and to inflate the supply of credit and currency to a still greater degree with the result that the price level is pushed up still further. A spiral of inflation is thus set into motion, raising the price level to ever greater heights, depressing the standards of living among the lower income groups, disturbing the relations between debtor and creditor classes, spreading discouragement and demoralization among the people and weakening the defensive powers of the Nation. The results of inflation are so disastrous that the Government as a matter of self-preservation, should try by every means at its disposal to prevent its occurrence when full utilization of resources is approached.

A moderate price inflation, however, may develop even long before full utilization of productive capacity is reached. Accordingly, steps to prevent inflation may have to be taken considerably in advance of that time. This fact is all too often overlooked. It is quite true that a cumulative price rise is extremely unlikely, if not impossible, while a large volume of idle resources exists, but there is ample experience to indicate that a general rise in prices, less spectacular in character, can develop in the presence of a large volume of unemployment. The expansion of production is a function of time. It is therefore quite conceivable that a large and rapid increase in governmental and civilian spending could outstrip the rate of increase of production. In such an event a general rise of prices would be inevitable.

Fiscal policy should aim at the prevention of such a general rise in prices under conditions of incomplete employment. In fact, the case for preventing inflation is even stronger in these circumstances than under full employment. In both cases there are grave distortions in the distribution of income and wealth which undermine national morale and threaten social stability; and the prospect of rising prices encourages both the speculative withholding and the speculative accumulation of goods, thus impeding the smooth functioning of the productive process. But under conditions of partial employment, the rise of prices in addition limits the rate at which production can expand. Higher profits, increasing the fraction of the national income which the community seeks to save, coupled with a decrease in investment demand as consumption is discouraged, accentuate the existing lack of balance in the investment market and hamper the expansion of production and employment.

Fiscal policy should be designed to prevent a general rise of prices under conditions of rapidly expanding production by holding down the rate of increase in total public and private spending to the pace set by the expansion of production. This does not mean the freezing of the total volume of governmental and private spending and, hence, the level of production. It merely means a controlled expansion of aggregate spending, accompanied by proper direct as well as indirect means to increase the rate of expansion of production.

Along with appropriate fiscal measures, proper nonfiscal devices will have to be applied to prevent a general rise of prices. Programs must be formulated for the expansion of productive capacity, the training of skills, and the organization of the labor market to provide for the smoothest possible transfer of labor from occupation to occupation as well as from one geographic area to another. Measures must be taken to prevent undue inventory accumulation which would withhold materials from the productive process and to check monopolistic restraints on the expansion of production, on the part both of industry and labor.

The criterion of a general rise in prices is found not so much in the rise of the general price index as in the rise in important component price indexes. A substantial rise in some component indexes, due to congestion or monopoly or both in particular commodities, would of course cause a rise in the general index. This, however, is not an indication that production in other areas cannot expand under the stimulus of an appropriate spending and other fiscal policy. The problem of rising prices in these areas of congestion

should be dealt with through the application of such devices as rationing or priorities, rather than through general control over the total volume of public and private spending. For even though the application of any general restrictive fiscal policy might effectively diminish pressure in those areas of production where demand exceeds available capacity, it would interfere with the objective of general economic expansion. The problem of these restricted scarcities known as "bottle-necks" can be dealt with most effectively through the use of nonfiscal devices.

The present price problems are of the bottleneck rather than the general type. Failure to deal effectively with them will doom us to continued unemployment, while the failure to prepare the fiscal machinery for mastering a general price rise, may lead to inflation. Both dangers must be fought lest the defense effort be seriously hampered and post-defense difficulties greatly increased.

Flexible expenditure policy.—The most significant fiscal aspect of the defense program is the great increase in total Federal expenditures. It has already secured a sharp acceleration of economic activity, and further increases will produce a still greater expansion of national production. Second in importance is the change in the composition of these expenditures, that is, the great expansion of items for national defense. These expenditures already almost equal nondefense expenditures, and before the end of the present fiscal year (1941) they can be expected to exceed them.

Considerable pressure now is being brought to bear by some groups in favor of an immediate and drastic curtailment in nondefense expenditures. Undoubtedly, with improved economic conditions some decreases in social welfare expenditures may be effected without any lowering in the standards of living of their beneficiaries. However, no considerable reductions can be made in the case of most expenditures of government, without decreasing the efficiency of the services and hence the defensive powers of the country. Total defense involves much more than the production of war material. It involves a maximum effort to protect the health and welfare of the people and to increase the efficiency of all departments of government concerned. The defense effort has already enormously increased the demands made upon the regular departments of government for services.

So long as there is in this country large unused productive capacity which cannot be absorbed immediately by defense requirements, drastic curtailment of nondefense expenditures is not in order. Reductions in nondefense expenditures should be limited to such expenditures as compete with defense industries for resources and are not particularly urgent. Only as we approach full utilization of resources do defense requirements demand a reversal of this policy, and the gradual curtailment in the aggregate of nondefense expenditures.

If a flexible expenditure policy is to be truly effective, it may require the exercise by the President of the power to withhold from the Work Projects Administration, and other agencies disbursing funds for Federal projects and grants-in-aid for State and local public works, such parts of the appropriations granted by Congress as he may deem necessary. In the case of appropriations for Federal highway aid, the power to withhold appropriations may have to be specifically vested in the President by Congress. This arrangement would leave Congress free to fix the maximum amount of appro-

priations and make it possible at the same time for the Executive to make such reductions therein as the prevailing economic conditions and the unfolding of national defense activities may require. The possibility of conflicts between the Government's civil and military expenditures would thus be greatly diminished.

Flexible taxation and borrowing policies.—On its revenue side fiscal policy should likewise be flexible in character, changing with the alterations in underlying economic conditions. In the early stages of the defense program, when the primary consideration is to expand production as rapidly as possible and to sustain consumption, the huge amounts of money required for the financing of the program should be obtained primarily through borrowing and the further extension of progressive taxation, neither of which will interfere with the achievement of these economic objectives. The imposition of additional consumption taxes should be avoided at this stage of defense activity, because it would interfere most with these objectives.

Taxation diverts funds from the taxpayer to the Government. The expenditure of these funds replaces, in whole or in part, expenditures by individuals and business firms. To the extent that the Government expenditures merely replace private expenditures, they do not add to the stream of income and the volume of employment. If taxes divert to the Government funds which would otherwise be saved, tax-financed expenditures have a net expansive effect on general economic activity. Consumption taxes, however, divert to the Government funds which would have been used for the purchase of private goods and services. Any increase in taxes upon consumption would, therefore, curtail production and employment.

An increase in taxes falling primarily on savings, such as those imposed on the incomes of individuals and corporations, also would have some repressive effect on production and employment through a restrictive influence on the consumption expenditures of the well-to-do. These repressive effects would offset in part the stimulus to employment provided by increased governmental expenditures.

Borrowing under present conditions, when the funds available for private investment are far in excess of the demand, exercises no repressive effects on production and employment, since it employs funds which otherwise would remain idle. Therefore, the impact of increased expenditures financed by such borrowing is in its strictly economic aspects purely expansive.

Psychological, political, and administrative considerations, however, make it inadvisable to procure additional funds by borrowing alone, even during the early stages of the defense program. It is desirable to introduce some additional tax levies in order to give expression to the sentiment of national unity and the desire of the people to bear some financial sacrifices because of the defense program. It is important also as evidence of the intention of the Government to finance an increasing proportion of its defense requirements by taxation. Finally, it is desirable in order to make certain that tax revenues will increase during the emergency in an orderly manner and at the required speed. It takes time for Congress to enact new revenue laws and for machinery for the collection of a large additional revenue to be organized. Moreover, in the case of some levies, collection can become effective only several months after authorization. Hence, it

is important as a matter of strengthening fiscal preparedness to enact new revenue laws for defense purposes at an early date.

But the new tax levies should be mainly in the form of increased taxes on the profits of corporations and progressive taxes on personal incomes, estates, and gifts, which interfere least with the expansion of production, especially since they absorb, in the main, savings which are not actively employed in private industry. For a policy of economic expansion the financing of defense expenditures through increased taxes on consumption is clearly inappropriate and should be restricted to a minimum.

Once a condition of full employment is approached, however, a further expansion of defense production cannot be secured simply by bringing idle resources into use. To finance the needed increase of defense expenditures under conditions of full employment by borrowing can result only in inflation unless specific measures are taken to avoid this result. Borrowing from the banks would be inflationary, for the volume of purchasing power available to government and to civilians would be increased thereby beyond the amount necessary to purchase the total output at existing prices.

Borrowing from individuals, in the absence of special control measures, would be inflationary in an indirect way, since it would not correspondingly curtail the funds available to them for the purchase of durable consumers' goods or for investment so long as such outlays could be financed through an expansion of bank credit or through drawing upon cash balances. Steps must be taken, therefore, at such time to prevent the expansion of the supply of money and to prevent or to offset increases in the velocity of circulation if inflation is to be avoided. Only such borrowing from individuals as results in an equal decrease of their consumption and investment outlays will be noninflationary. In other words, borrowing is an appropriate fiscal device under the circumstances only to the extent that the community can be induced to save a larger fraction of the national income and place it at the disposal of the Government.

Similarly, the financing of a further expansion in defense expenditures under conditions of full employment of resources, through additional progressive levies if such were practical, would likewise have some inflationary possibilities, inasmuch as the well-to-do would still be able to procure funds for either investment purposes or acquisition of durable consumers' goods by borrowing from banks. These inflationary possibilities can be reduced only by means of such credit controls and restrictions of investments as have been indicated. But even if higher progressive taxes were accompanied by such credit controls, they would still be of little help in the financing of the additional defense requirements because of the limited character of the sources to which they can be applied.

The most effective means of raising revenue for a further expansion of defense expenditures under conditions of full utilization of productive facilities is to impose additional taxes on the broad body of consumers. First of all, such levies on consumers would be most effective in checking inflationary price rises, inasmuch as they would curtail the purchasing power of consumers by substantially the same amount as they increase the purchasing power of the Government. Furthermore, they represent the only way in which under the existing distribution

of national income a large portion thereof can be applied to defense purposes.

There are several types of taxes on consumers which may be employed to effect a large-scale transfer of purchasing power to the Government. One possibility is the broadening of the personal income tax. Another possibility is an increase in the rates of the employees' pay-roll taxes, but this expedient is open to the objection that it singles out for reduction the consumption of the wage earners.

From a superficial viewpoint it might appear that a national retail sales tax may be especially effective in accomplishing this purpose. Such a tax would distribute the burden over the whole population and would exempt necessities of life as well as impose heavier burdens on luxuries. The impact of the tax would fall with full force on the final consumers and would act as a powerful brake on the expansion of consumer purchasing power. Its weakness lies, however, in its inability to absorb profits resulting from the rise in prices and in its regressive character.

Another tax which would act as a brake on consumption is a manufacturers' sales tax. Its defect, however, lies in the fact that it similarly applies only to one stage of economic exchange and hence cannot be used to absorb profits resulting from the rise in prices at other stages.

A general excise tax on the "value added" of all industry and business could be drawn to avoid some of the defects of the retail or the manufacturers' sales taxes. The tax would be imposed on the gross value of the sales of each enterprise less the costs of materials and services purchased from other enterprises. It would be levied on the sum total of pay roll, interest payments, rental costs, and profits of each enterprise. Small enterprises having gross sales of, say, less than \$5,000 a year might be exempted for administrative reasons from the application of the tax.

Such a tax on value added, according to its proponents, would permit the greatest possible diffusion of the tax burden. In a period of an incipient price rise, it would absorb some of the profits which would otherwise accrue. Against the amounts due under this tax, credits could be allowed to employers for pay-roll taxes paid by them to avoid duplication of tax burdens and, incidentally, to equalize the burden imposed by pay-roll taxes as between non-mechanized industries employing much labor and highly mechanized industries employing relatively little labor. The tax, it is suggested, could be introduced first at a relatively low rate, which subsequently could be raised as conditions would require. Only when the rate of the tax is increased above 4 percent (the present rate of the employers' pay-roll taxes) would additional burdens be imposed thereby on the pay-roll base. Up to this point the amount of the "value added" tax would be determined in each case entirely by the amount of the enterprise's capital.

Whatever type of tax on consumers is used at the time of full utilization of resources in order to make possible the further expansion of defense activities, its introduction must be effected quickly and in the proper degree. Obversely, as soon as an expansion of purchasing power becomes possible because of an expansion of productive capacity, reductions in the levies on consumers similarly should be

effected promptly. Unless these conditions are met, taxation as an instrument of control of inflation will fail of its objective.

Some persons believe that Congress could be prevailed upon to enact such a tax with sufficient speed when the threat of inflation becomes visible. They also believe that Congress would act quickly enough whenever an increase or a decrease in the rate of the tax is called for by a change in economic conditions.

Others maintain that congressional procedure is too slow to permit of such quick and exact application of a flexible tax policy for the control of inflation. They point out that the operation of such a policy is comparable to the controls exercised by central banks over interest rates. They propose, therefore, that the operation of the flexible tax policy be entrusted by Congress to an administrative agency, under terms fixed in the law, so that speed and flexibility of action could be obtained without any surrender by Congress of its essential controls over the taxing policy itself. Congress, they say, should at once enact a law providing the machinery for control of inflation through taxation. It should determine which tax should be used for the purpose, under what exact conditions of price rise and other economic changes it should be applied, at what rates it should be applied and under what conditions the tax should be withdrawn, so that consumption could be alternately restricted or released, as conditions may require.

It is contended by the proponents of such advance action for the control of inflation that the "value added" tax would be most appropriate and that the law providing for its application should also provide for the automatic adjustment of the rates to the requirements of diverse economic situations. The possible economic conditions calling for variations in its rates could be specifically described in the law with reference to changes in the indexes of prices, unemployment, unused capacities, the Federal deficit, and so forth. The executive could be authorized to proclaim the existence of these defined situations whereupon the applicable tax rates prescribed by law would become effective. In proclaiming the existence of any specified situation the President could be advised by a defense finance committee.

Such an arrangement, it is believed by the proponents of the measure, may bring about the desired flexibility without involving any unconstitutional delegation by Congress of its taxing power, since it would delegate to the executive merely a fact-finding function. This device, it is said, would permit the pursuance of a long run fiscal policy in the best interests of the economy as a whole, leaving necessary short-run adjustments to the flexible elements of the policy. The plan would permit a bold policy of making the fullest possible use of productive forces, while avoiding the dislocations bred by an uncontrolled price rise. It would not be a substitute for, but rather a supplement to, nonfiscal measures designed to prevent bottlenecks and to expand capacities before the shortage becomes serious.

The relative merits of these two methods of restricting civilian consumption through taxation—congressional action only at such time as inflation makes its appearance or automatic application of levies authorized in advance—should be carefully considered. Some measure is necessary to make certain that in pursuing a bold policy for the mobilization of all our national resources for defense purposes we do not drift into inflation.

Further considerations involved in borrowing.—It has been argued above that, as fuller utilization of resources is attained, an increasing proportion of the funds required for defense should be derived from taxation, and a decreasing proportion from borrowing. Once full employment has been achieved, the question arises whether all defense expenditures should not be financed by taxation—in short, whether the budget should not be balanced.

In view of the magnitude of a total defense effort and the large part of the national income which it may require, it is open to serious doubt whether a policy of balancing the budget would not seriously impede the mobilization of the full productive energies and the morale of the community. The portion of the national income which we may be obliged to devote to defense will be determined, not by our choice, but by events abroad. This fraction may rise to a quarter, a third, or perhaps even a half of our national income. To secure so large a part of the national income for the Government would require extremely drastic taxation not only of incomes in the middle and upper brackets and the earnings of business units but of lower incomes as well.

Realistically considered, there are limits to the burden of taxation which can be placed upon the community without impeding the smooth functioning of enterprise and impairing morale. Financing some part of the defense program through borrowing, though not required for purposes of expansion, is unavoidable if the full economic and moral strength of the Nation is to be engaged in the defense effort.

It has been pointed out that borrowing under conditions of full employment may be inflationary in character unless specific measures are taken to avoid this result. Measures would have to be taken to induce the community to save a larger fraction of its income and to reduce its consumption expenditures, as well as its nonessential investments. There are various devices by which this could be done. J. M. Keynes' plan of compulsory loans through the sale of nonnegotiable bonds to all income recipients deserves special attention.

The proposition that the balancing of the budget would be undesirable does not alter the proposition that an increasing part of the defense program should be financed through taxation as full employment of resources is approached. The extent to which the defense program is financed by borrowing determines the rate of growth of the public debt. Even though this debt is internal in character and the interest payments on it do not entail the transfer of income or resources outside the country, they do impose a substantial burden on the national budget and the tax system. Although the effectiveness of our defense effort must be our primary concern, fiscal policy must be formulated with a view to the problems of the post-defense period as well. Every effort should be made, therefore, to control the increase in the national debt and to increase the proportion of the total means of financing secured through taxation up to the limit where taxation hampers the defense program.

The relation of fiscal and monetary policies.—The use of monetary controls to meet the problem of the bottleneck price movements is as inappropriate as the use of general fiscal measures for this purpose, and for the same reasons. But a general inflationary situation short of full employment can be dealt with through monetary and fiscal measures, which must be integrated if the underlying economic objectives are to be served.

This is not the place for a careful treatment of the nature and effectiveness of instruments of monetary control. In its simplest terms, the control over prices and production which can be exercised through monetary means centers on control over interest rates. It is only through the impact of changes in the structure of interest rates on the volume of investment and the level of expenditures for durable consumers' goods that changes in the volume of bank deposits can have any effect upon the flow of expenditures.

It has long been recognized that monetary controls operate much more effectively in restraining than in stimulating investment and economic activity. These controls are only moderately effective unless used in a drastic fashion when their impact upon the economy is likewise abrupt. They are, therefore, not well adapted to situations which call for smooth controls. It follows that monetary controls are not appropriate to meet the problems of a general price rise under conditions of partial employment. In such a case the rate of increase of expansion of total expenditures must be controlled to match the rate of expansion of production. Governmental effort must be directed at securing an expansion of defense production which would avoid a general rise of prices. The type of control to be exercised must be delicate and flexible. Fiscal devices meet these requirements; monetary devices, by and large, do not. Some use can and should be made of monetary devices to supplement the fiscal devices employed. For example, aid of the banking system can be enlisted to discourage inventory speculation and other undesirable forms of investment. But primary reliance must be upon fiscal policy.

It is open to serious doubt whether modification of the interest rate structure is an appropriate device for the control of prices even under conditions of full employment. If fiscal measures are not designed to prevent inflation, a moderate, or even a drastic, increase in interest rates would be largely ineffective in preventing a general rise in prices. Experience abroad with inflationary situations deriving from inappropriate fiscal policy is fairly conclusive on this score.

Furthermore, the use of interest rate controls during the defense emergency to prevent inflation would cause difficulties during the post-defense period. In that period we must expect again to be confronted with the same tendency toward underinvestment which has characterized our economy during the past decade. Whatever may be the explanation of this phenomenon, whatever may be the longer term prospect with regard to the factors in the investment market, there is no immediate evidence that, as the national income rises, investment opportunities will keep pace with saving. The only safe assumption upon which to operate at this time is that in the post-defense period monetary policy will still need to be geared to the encouragement of investment. An easy-money policy will be essential at that time. Consequently, if we should now introduce a hard-money policy, we will find it difficult subsequently to make necessary readjustments.

Our experience with the easy-money policy pursued since 1933 has demonstrated that, while it is relatively easy to reduce short-term interest rates, it is extremely difficult and time-consuming to bring down long-term rates, particularly on moneys obtainable by industry in the open market. Buyers of securities, accustomed to the high level of interest rates during the 1920's, believed that the

reduction of rates would be only temporary. They hesitated to purchase securities at low yields which would expose them to the danger of capital loss when interest rates again rose. To bring down long-term interest rates security buyers had to be convinced that once brought down the rates would be kept down. It took a long time for the Government to accomplish this result.

In 1937 the Treasury and the Federal Reserve authorities, in spite of frequent assurances to the contrary, permitted a rise in bond yields. This revived the fears of security buyers. If interest rates are permitted to rise during the defense emergency, the reduction of long-term interest rates, so laboriously accomplished, will be interrupted. It will be doubly difficult in the post-defense period to persuade security buyers that interest rates must be brought down and kept down.

Primary reliance, even when full employment has been reached, should continue to be placed upon fiscal techniques. Some use of monetary measures is unquestionably called for, particularly when the stage is reached at which it becomes desirable to check the expansion of investment not directly geared to defense production and to check the expansion of expenditure for durable consumers' goods. Even in this case, however, a rise of interest rates is to be avoided. Discouragement of these types of expenditures would be effected by other means than the tightening of interest rates. For example, the down payments required in the purchase of durable consumers' goods on credit might be increased. The assistance of the banking system might be invoked to exercise informal restraints on borrowing for nonessential investment purposes.

It cannot be too greatly emphasized that, because of the long-term problem of the inadequacy of investment, every proposal offered in the field of monetary policy must be scrutinized to determine whether it can be carried out without causing an increase in interest rates. The proposal that excess reserves be reduced and the proposal that the Treasury now sell securities to the general public rather than to the banks must be considered in the light of this requirement. The proportion in which new flotations should be sold to the banks and to the public and the reduction of excess reserves to be effected now and in the future should be determined largely upon this basis.

Readjustment of Fiscal Policy After the Defense Period.

The termination of the national defense program will cause serious dislocations in our economy. Though it is difficult at this time to forecast just what the nature and extent of these dislocations will be, it can at least be anticipated that the transition from a war to a peacetime economy will cause considerable unemployment and nonuse of capital.

The slump in business activity during this transition period would be minimized if the Government were to introduce, immediately upon terminating its defense activity, a large scale program of useful construction projects and to extend its existing social and economic services. Suffice it only to mention the more extensive development with Federal assistance of public housing for the lower income groups, slum clearance, the construction of super-highways, public airfields, and power projects, the replanning of our cities and towns.

the extension of educational, recreational, hospital, and health control facilities in backward areas; extension of the social security system to groups not now covered as well as the inclusion of new benefits and liberalization of old provisions. At the same time downward adjustments will have to be made in any restrictive consumption taxes introduced during the defense period.

Before the 1930's the Federal, State, and local governments combined contributed in services approximately 10 percent, and redistributed in benefit payments to dependents approximately 1 percent of the national income. During the 1930's these proportions rose to approximately 15 and 4 percent, respectively. How high they will become during the defense period and how sharp will be their decline thereafter it is impossible to predict. It may be safely assumed that they will be somewhat higher after the defense period than before. In these figures payments of interest on war debts are omitted because they are in a different category from the other outlays mentioned, since they merely involve transfers of funds from one group of taxpayers to another and do not represent services rendered or a contribution to the national income. Expenditures by the Government for supplies and services purchased from private enterprise are also omitted, inasmuch as they represent a contribution to the national income by private enterprise and not by government.

In other words, even with their proposed extension during the post-defense period, the services of government would not exceed 20 to 25 percent of the national income. Its expenditures for social security and like benefits would not exceed 5 to 10 percent of the national income. Private enterprise probably would continue to supply from 75 to 89 percent of the national income, and the portion redistributed in the form of social security and other benefits would still be relatively small. The resulting alteration in the relative importance of the private and public sectors of the national economy and redistributions of national income would be far from revolutionary in character, and could not be interpreted as representing a major move toward the socialization of our national economy.

Finally, if a lack of investment outlets for private savings reappears during the post-defense period, a program of governmental works and new social and economic services should prove helpful in mitigating its effect. This program should be accompanied by a sufficiently progressive tax system to absorb some of the idle savings. On the other hand, if a lack of investment outlets should not recur and private industrial activity after the brief period of readjustment should take the initiative, it would be possible to curtail or abandon many aspects of this program as soon as it has accomplished its purpose of bridging the gap between the defense period and the new peacetime advance of industry.

Federal Budget Readjustments Necessary for Greater Flexibility of Fiscal Policy.

To implement a flexible fiscal policy, adjusted to the requirements of changing political and economic situations, it is desirable to develop different legislative and administrative budget procedures for different categories of expenditures. It is suggested that the usual budgetary classification of expenditures according to departments and other units of the Government doing the spending be supplemented by the

following classification according to their basic economic and administrative characteristics:

1. Regular expenditures which are fairly constant and change little from year to year, including expenditures for regular Government operations, for benefit payments and grants fixed by legislative commitments, and for statutory debt services;

2. Emergency or defense expenditures comprising all military expenditures and those nonmilitary expenditures which would not be undertaken in the absence of the defense program; and

3. Developmental outlays including economic and social programs and extraordinary debt redemptions. These are the outlays which can be either expanded or contracted in accordance with economic conditions prevailing at a given time.

The regular expenditures should continue to be authorized by annual appropriations. A carry-over of unexpended money should be permitted only in exceptional cases if specifically authorized in the appropriation act. Appropriations and estimated expenditures for a specific year should be as close to each other as possible.

Defense appropriations should be devised to enable the Government to carry out the defense program with the greatest possible speed. The whole program should be authorized in big lumps as it develops irrespective of the year or years in which particular parts may become effective. For this category of expenditures the total of the appropriations and the disbursements made in any given year will necessarily differ substantially and a large carry-over will be the rule.

The developmental outlays should be planned long in advance and should serve as the flexible element on the expenditure side of the budget. These expenditures will be curbed during the defense program and should be used as a shock absorber in the post-defense period. One important step has already been made in developing appropriate administrative procedures for this category of outlays. The National Resources Planning Board has compiled, in collaboration with the Bureau of the Budget, a 6-year construction program. It is also preparing a list of desirable public works for the post-defense period, arranged according to their urgency. This procedure certainly will be of great value in preparing future budget recommendations for public works programs. The incorporation since 1937 of an annual "General Public Works Program" in the Budget as a special chapter, composed of requests of various Federal departments and agencies, marks a further step in this direction.

At present only Federal departments and agencies are required to submit their construction programs for inclusion in the 6-year program. In the future State and local governments should perhaps be requested to submit any of their programs for which a Federal grant might be sought by them later. Special consideration should be given to joint Federal-State programs, such as the Federal aid highway system, which are rigidly fixed by legislative commitments. It should be possible to work out a method by which legislative, if not administrative, flexibility for these large developmental outlays could be achieved.

There are other types of developmental programs besides construction which might be included in the 6-year program—for instance, extraordinary projects in the field of public hygiene or education. Cer-

tain new functions of an experimental nature might first be included under the developmental category and could later be shifted to the regular operations if it is decided to continue them as normal functions of government.

The 6-year construction program of the Federal Government at present is only an administrative procedure designed to facilitate a better preparation of the annual budget recommendations. The question arises as to whether it is feasible to have such a program enacted by Congress. In this respect the experience of the city of New York with capital budgeting is of great interest. The new charter for New York provided for a budget of capital outlays to be formulated and acted upon each year for the next 5-year period. This method combines long-range planning with the possibility of annual adjustments in the plan. The feasibility of a similar 6-year developmental budget for the Federal Government should be examined. Besides making possible a careful comparison of the relative merits and urgency of various proposed outlays, such programming in advance would permit the Government to vary the amounts of such outlays from year to year in accordance with changing economic circumstances. The flexibility of Government expenditures in this respect could be especially enhanced if Congress would authorize the spending in any specific year of either more or less than one-sixth of the 6-year outlay, depending on economic circumstances. Appropriate devices for legislative guidance or control in the timing of the outlays could be formulated. The whole subject of the manner in which developmental outlays should be set up and controlled in the budget should be carefully investigated.

The proposal to adopt specific budgetary procedures for the three main categories of expenditures should not be confused with proposals for introducing "multiple" budgets or for the establishment of a so-called "capital" budget as distinguished from an operating budget. The present proposal calls for the continuance of the existing single or unitary budget, and merely provides for a clear subdivision of expenditure items into the three categories mentioned. The proposed category of developmental outlays differs in several respects from the customary categories of capital outlays. Capital outlays comprise, as a rule, all expenditures for durable goods, such as roads, buildings, and the like, including even those which are recurrent in nature and may last only a few years. Developmental outlays would include only such capital outlays as are really of an extraordinary and long-range nature. They may include projects of long-range significance which do not necessarily involve the creation of durable properties, but the full benefit of which may be realized only years later. Programs of extensive research are a case in point. Developmental outlays may also include, as indicated, extraordinary redemptions of the debt. Outlays for normal additions to the administrative plant under the proposed classification would be included among regular rather than developmental expenditures.

Advocates of the capital budget maintain that a businesslike method of budgeting requires the separation of the capital account from the operating expenditures, so that the value of the assets acquired or created wholly or in part from borrowing during a given fiscal period may be shown as an offset to the increase in the public debt occurring at the same time. The creation of a separate capital

budget is also advocated by some because of a belief that capital outlays should be financed, in the main, by borrowing, while operating expenses should be taken care of normally from ordinary revenues. The present suggestion for the introduction of a clear distinction in the budget between regular, emergency, and developmental expenditures is not made so much with a view to establishing different methods of financing these expenditures as with a view to establishing different methods of managing them.

It has already been indicated that the methods of financing defense expenditures must vary with economic circumstances. Under certain conditions, borrowing should supply the major portion of the required funds; under others, taxation should do so. Similarly, the methods of financing developmental and ordinary expenditures should vary with changes in economic conditions. During periods of prosperity, for example, both these categories of expenditures should be financed from ordinary revenue, but in the depths of a depression even the ordinary expenditures must be financed at times from borrowing. The character of the expenditures must be given some, but not exclusive, consideration in the determination of the methods of financing them. Attention must be given as well to broad economic and administrative factors. There should be as little earmarking as possible of specific revenues for specific expenditures, because such earmarking would introduce into the budget undesirable rigidity. Some of the earmarking now existing in the budget—such as, for example, the allocation of 30 percent of customs receipts to the disposal of surplus commodities—should be abolished. The present unitary character of the budget should be preserved so that the Government's fiscal policy continues to be as flexible as possible.

Consideration should be given to the possibility of making the Federal budget even more comprehensive than it is at present. During recent years a multitude of special governmental corporations and trust funds have been set up, whose operations are not included in the budget. Unquestionably, there are good reasons for having a separate old-age and survivors' trust fund to disburse old-age benefit payments. There are probably equally good reasons for establishing special corporations for the management of certain quasi-commercial operations of the Government and providing them with special revolving funds which may be administered outside of the regular budget. Nonetheless, a careful examination should be made of every activity carried on by each special corporation, and of every special fund set up so far and every type of revenue directed into it, with a view to finding out whether adequate justification for such separate treatment exists; or whether it might not be preferable, perhaps, to carry on the activity involved by a regular agency of the Government and to redirect the particular revenue into the general fund or even merge the entire fund and subject the expenditures and revenues involved to regular budgetary controls.

Moreover, care should be taken that so far as practicable the receipts and disbursements of all such corporations and special funds are at least included with the receipts and disbursements of the general fund in a single consolidated statement for purposes of information.

Budgetary reform should move in two directions: (1) It should bring about greater unity and comprehensiveness of the budget and

such improvement in its internal classification of expenditures and means of financing them as will facilitate an intelligent interpretation of current fiscal developments and controls, and (2) it should provide for greater flexibility of the budgetary controls over the developmental and emergency expenditures so that the budget will become a more effective instrument in establishing a fiscal policy designed to promote a steady and high level of national production at all times.

Desirable Improvements in Intergovernmental Fiscal Relations.

It has been evident for some time that the respective capacities of the Federal, State, and local governments to raise revenue by taxation do not accord with their respective requirements for revenue. The capacity of the Federal Government to raise additional revenue increased up to the beginning of the depression even more rapidly than its expenditure requirements, with the result that the Federal Government experienced on the whole little difficulty in financing them. The situation in the case of the States, and especially of the local governments, has been the reverse, their respective abilities to raise revenue failing to expand as rapidly as their expenditure requirements.

The resulting difficulties experienced by the States, and especially the local governments, in raising the required additional revenues have been solved in part by a clear recognition of the possession by the larger governmental jurisdiction of superior advantages in the levying of taxes and, accordingly, by the introduction of Federal grants-in-aid to States and State grants-in-aid to local governments for the support of specified functions. These difficulties have also been solved in part, in the case of local governments, by the introduction of a system of State-collected, locally shared taxes. Finally, the problem of the inability of the State and local governments to finance their increasing expenditures out of their own revenue resources has also been solved in part by transferring some of the actual expenditure responsibilities from the local governments to the States, and from both State and local governments to the Federal Government.

In addition to the difficulties experienced by the State and local governments in raising required revenues, special difficulties in this respect have been encountered by the poorer States and, within each State, by the poorer local communities. This problem of the unequal ability of different States and different localities to finance needed services has been treated by the Federal and the State Governments by means of grants-in-aid designed to equalize as far as possible the abilities of the States and the local communities involved to maintain certain minimum standards of required services.

Very little has been done, however, toward bolstering up State and local revenue sources through a reallocation of tax sources as between the Federal and State Governments, on the one hand, and the State and local governments, on the other. Yet unquestionably a great deal could be done in this direction, if a concerted effort to that end were made.

The existing system of taxation is defective also in that it is responsible for uneconomic competition between the three levels of government for new revenue resources, resulting in overlapping tax burdens, mutual interferences by the governments concerned with each other's

efforts to levy taxes, and considerable losses of tax revenue for all of them. It is responsible also for considerable duplication in the costs of collection of revenue, unjustifiable divergences in the provisions of the Federal and State tax laws relating to the same taxable objects, and other unnecessary complications of the law resulting in undue harassing of the taxpayers.

Our present tax system is characterized also by troublesome competition for tax revenue between governments operating on the same level. Suffice it only to mention as examples the conflicting claims of different States for jurisdiction to tax the same sources of wealth, which result in cases of unfair double taxation, and the extension by certain States and localities of special exemptions from taxation to certain types of wealth, as an inducement to locate within their boundaries, which results in considerable leakage of revenue for all governments concerned.

It has already been suggested that the existing allocation of expenditure responsibilities among the Federal, State, and local governments is not uniformly satisfactory. The existing system of public expenditures also suffers from a lack of coordination of efforts between governments operating on different levels, as well as those operating on the same level. There is considerable waste and duplication of effort in the pursuance by different governmental units of conflicting policies which reduce the efficiency of the government taken as a whole. There is also insufficient cooperation between the Federal, State, and local governments in the exercise of their credit.

These are but a few of the problems in the financial relations of the Federal, State, and local governments which urgently require solution. They should be carefully studied by some properly constituted agency from a broad national point of view, so that the required solutions may be found.

TAXATION

The preceding sections of this chapter have pointed out the general role of taxation in adapting fiscal policy to the changing requirements of modern government in the present era. The emphasis is now shifted from the interrelationship of taxation, expenditures, and debt to a somewhat detailed consideration of the various effects of taxation upon the people and upon the industrial economy of the United States.

Who pays the taxes? Is the American tax system progressive or regressive and whither is it tending? How do taxes affect savings and consumption? What is the relationship of taxes to the distribution of wealth and income? Does the present tax system prevent or increase the further concentration of economic power? Are investors handicapped by high surtaxes? What is the effect of taxes upon business profits? How is small business treated? Was the undistributed profits tax particularly onerous on it? Are monopolies or holding companies favored? How will the newly enacted excess profits tax work out? Does the pay-roll tax favor mechanized industries? These are the questions for which answers are sought, so far as present knowledge permits.

The tax system is at once a source of public revenue and an instrument for social and economic regulation. Seldom has it been only one

to the exclusion of the other. The men who make our laws have been ever mindful of the twofold nature of the tax system since the establishment of the Federal constitutional system. The tariff, for instance, is an example of a tax for the collection of revenue as well as for the development of native industry. The corporation income tax was heralded in 1909 by President Taft as at once a Federal tax and "a long step toward that supervisory control of corporations which may prevent the further abuse of power."

The present tax system is an historical product—the result of a variety of political, social, and economic pressures. It is a conglomerate of 1 Federal and 48 State tax systems, developed independently of each other rather than as parts of a single or unified system. Although some features common to all these systems may be discovered, there are many differences between them which appear to be wholly accidental and unexplainable. In selecting new taxes under the pressure of need for additional revenue both the National and the State legislatures as a rule have been guided by considerations of immediate political expediency and not infrequently have been influenced by the prejudices and self-interests of the political and economic groups dominant in the affairs of government at the moment, rather than by any long-run considerations of equity and economic welfare of the National or State community as a whole. As a result of this haphazard development, our American tax system today is replete with inconsistencies and contains many inequitable and uneconomic features.

A substantial tax increase has occurred in recent years, whatever the yardstick used for the measurement of tax collections—be it total dollars, per capita dollars, or in terms of goods and services. Per capita tax payments in the United States were \$23.42 in the year 1913. They increased to \$84.41 in 1920, \$84.69 in 1930, and \$114.09 in 1938. The Federal Government's share in these sums was \$6.87 in 1913, \$53.77 in 1920, \$29.45 in 1930, and \$46.48 in 1938.

But the same period which witnessed so considerable an increase in tax payments was also attended by a corresponding expansion in the number and nature of Government services. To speak of taxes as a "burden" without giving due consideration to the productive use to which they have been put—for example, highways, schools, sanitation relief, control of disease, police and fire protection, and social security—distorts the facts. Taxes are not collected to be dumped as waste matter into the sea. Like the sales income of a business enterprise, taxes are the operating income with which the Government pays for its manifold activities.

Taxes vary greatly in their form and basis of application. One form of tax is levied on ownership—for example, of a factory, a house, or a corporate charter. These taxes must be paid without the slightest regard to whether, for instance, the factory is humming with activity or standing in idleness. A tax of this description is a "fixed cost" that runs on year in and year out without interruption.

A second form of tax is levied on consumption, for example, of a definite unit of production—a package of cigarettes, a bottle of liquor, a gallon of gasoline, a kilowatt-hour—or on the dollar amount of retail sales or on the number of employees in a business. The magnitude of

such a tax rests directly upon the volume of industrial activity—in a word, it is a “variable cost” fluctuating from year to year.

A third form of tax is levied on profits or incomes of an individual or a corporation.

Taxes which enter into the fixed or variable costs of an enterprise do not end their effects with the first person who pays them. It is likely that they will be passed on in whole or in part during the course of business activity to other persons who will do the same in their turn. In the terminology of public finance such taxes are said to be shiftable in character and may move either forward or backward.

Changing Sources of Taxation.

The changing tax sources of the Federal, State, and local governments are pictured in chart XVI. In 1913, the first year for which reliable data by tax sources are available for all three levels of Government, the property tax supplied 56.7 percent of all revenues, while consumption taxes (which include those on customs, liquor, and tobacco) supplied 30.5 percent of the whole. These taxes furnished the principal mainstay for the Federal, State, and local governments. The percentage yield of the property tax has decreased from more than one-half of all revenues in 1913 to less than one-third of the whole. In spite of this shrinkage it still retains its position as the principal source of all public revenue, and continues as the financial foundation of nearly every local government.

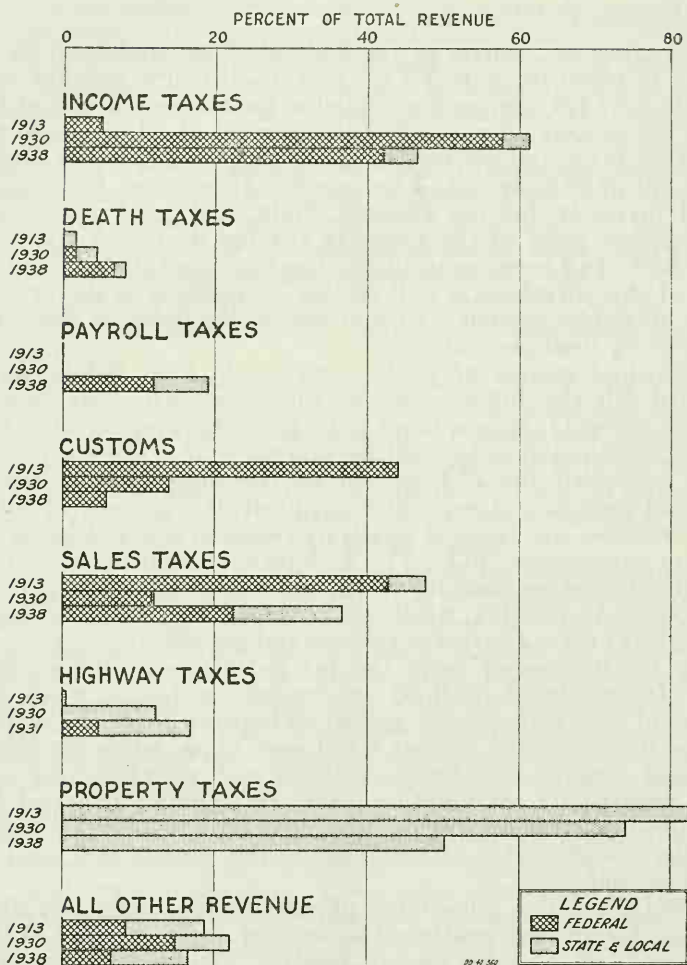
The principal sources of public revenues in 1930, before the tax system had felt the fullest effect of the depression, were property taxes (45.7 percent), income taxes (24.1 percent), and highway taxes, including gasoline and motor vehicles (7.6 percent). These three taxes together accounted for 77.4 percent of the total revenue receipts. Income and highway taxes, which supplied 31.7 percent of all the 1930 tax revenues, are taxes of relatively recent origin and hence were scarcely in evidence in 1913. The Federal Government with its extensive jurisdiction over mobile wealth and income placed its principal reliance on the income tax, while the various States depended largely on the highway taxes (on motor vehicles and gasoline).

During the depression years the tax pattern was further transformed. Income taxes declined as revenue producers, while taxes on articles of mass consumption gained widespread favor. The different States freely enacted various retail sales taxes, while the Federal Government renewed its reliance on liquor and manufacturers' excise taxes. Consequently consumption taxes, whose importance had for a time declined, by 1936 once again accounted for a substantial share of the public receipts (21.7 percent), while the income tax yield was only 15.5 percent.

By 1938 the relative importance of consumption taxes had diminished even though they continued to account for a substantial share (18.6 percent) of the total revenue receipts. Taxes on income (19.3 percent) and wealth (3.5 percent), though showing a relative increase, have lagged behind 1930 proportions. The pay-roll tax, enacted in 1936 as a part of the social security program, has emerged as a new and important revenue source (9 percent) to Federal and State Governments alike.

CHART XVI

CHANGING REVENUE SOURCES OF FEDERAL, STATE & LOCAL GOVERNMENTS, 1913 - 1938



*Who pays the taxes?*³

This is one of the most fundamental questions in the domain of modern taxation, though the answer to it cannot be given with precision in the absence of so much essential data. The general distribution of the tax burden for 1939 is painted in broad strokes in charts XVII and XVIII.

These charts suggest that persons in the lowest income group, who receive less than \$500 per year, compose 17 percent of all income groups in the Nation, but receive only 3.4 percent of the total income. They make no savings during the year but in fact run up substantial deficits. In spite of the meagerness of their income one-fifth of it is taken away by a variety of concealed consumers' taxes. At the other end of the income scale, persons with incomes of \$20,000 and more are but 0.3 percent of all income recipients, yet receive 8.4 percent of all income. Though paying out 37.8 percent of their income in taxes, they accounted for 30.4 percent of all savings.

The operation of the American tax system is regressive at the lowest level, proportionate at the middle levels (\$1,000-\$10,000) and progressive at the higher levels. Persons with incomes of between \$5,000 and \$10,000 pay a smaller percentage in taxes than does the lowest group with incomes under \$500. These figures indicate that the existing tax system favors the income groups between \$1,000 to \$10,000 more than persons in the lowest income groups. Their net incomes are small enough to escape the harsher effects of the income tax and large enough to provide a surplus over their expenditures for taxable consumer goods. It is to be noted from the chart that proportionate taxes fall with much greater weight on limited incomes than on larger ones, where the capacity for making savings is considerable, and thus are inequitable.

The income group of \$20,000 and upward has been able to save nearly four-tenths of its income, which is equivalent to the sum of its direct and indirect taxes. The income group between \$10,000 and \$20,000 managed to save nearly a third of their entire income, in spite of a tax load of 25.5 percent on the \$10,000-\$15,000 group, and one of 31.7 percent on the \$15,000-\$20,000 group. The identical percentage saved by these two groups is particularly impressive because of the 25 percent difference in their respective tax loads.

Regressive and proportionate taxes supply the great bulk of all tax revenues. Only 25 percent of all taxes are based on capacity to pay.

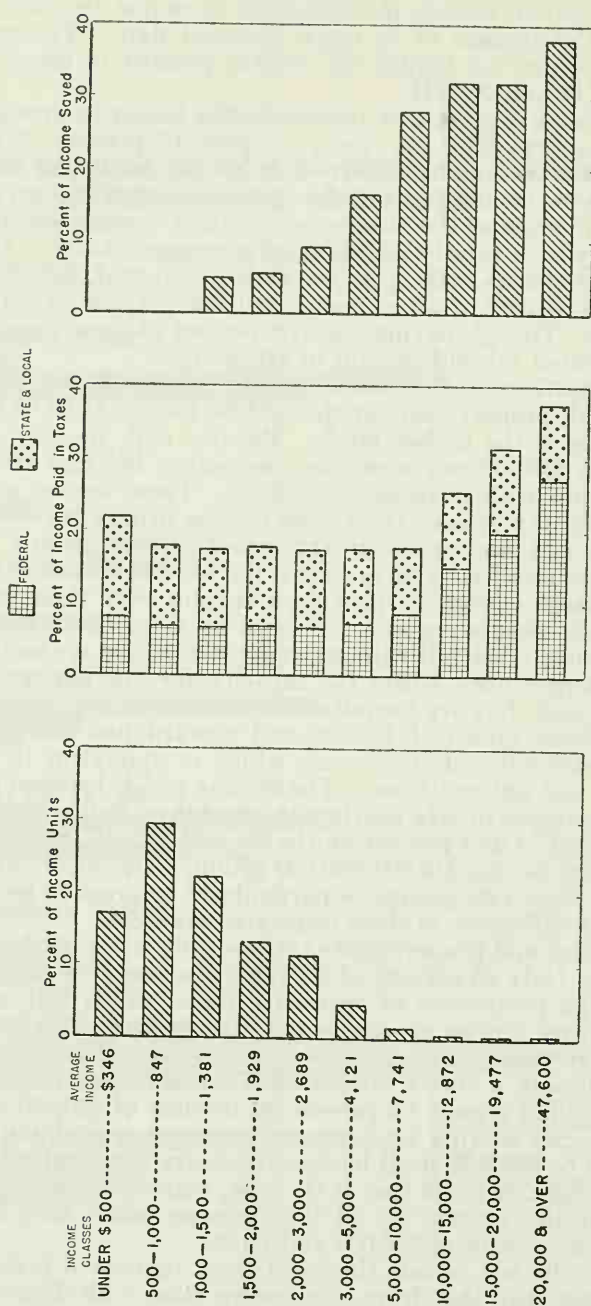
The high proportion of regressive taxes, which fall most heavily on the lowest income groups, is the glaring inequality in the American tax system. State and local regressive taxes on specific consumption were a direct charge of 4.3 percent on all 1938 incomes below \$500 but a mere 1.6 percent on incomes of \$20,000 and upward. The disparity of this arrangement grows more striking if the presumption be made that all business costs are commonly shifted to the ultimate consumer. If that is the case, regressive taxes were a direct charge of 13.8 percent on all 1938 incomes below \$500 and only 3.5 percent on incomes of \$20,000 and more.

Within the last decade the yield from regressive taxes has multiplied faster than that from progressive taxes with distressing results

³ See Temporary National Economic Committee Monograph No. 3 by Gerhard Colm and Helen Tarasov.

TAXES, CONSUMER INCOME & SAVINGS FISCAL YEAR 1939

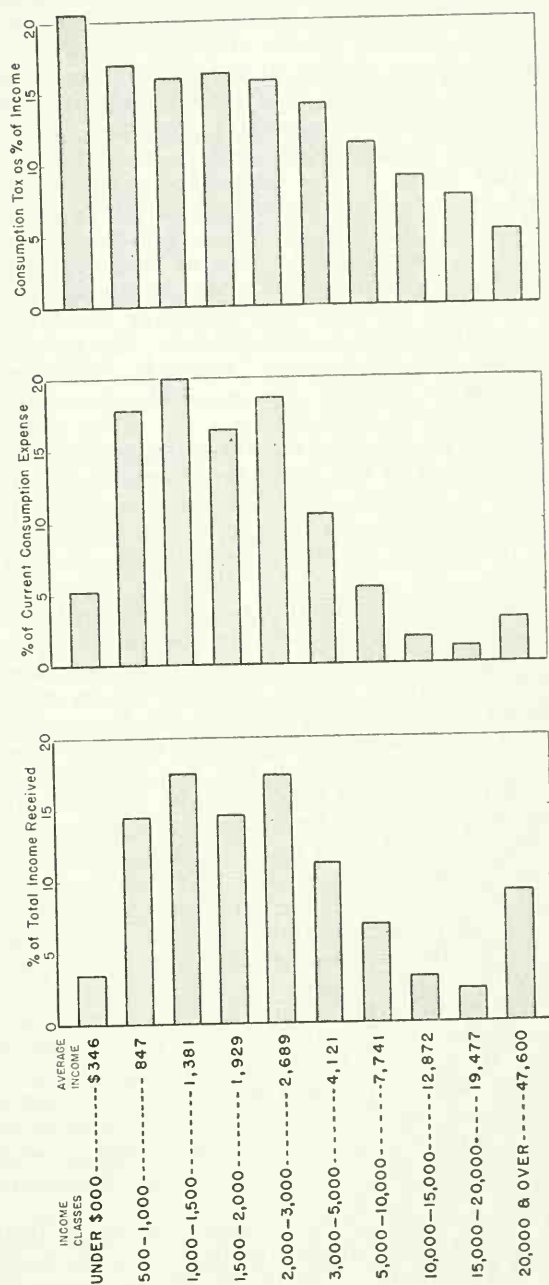
CHART XVII



SOURCE: Estimates of Colm & Torosov from monograph #3, Who Pays The Taxes?

CONSUMPTION TAXES & CONSUMER EXPENDITURES FISCAL YEAR 1939

CHART XVIII



SOURCE: Estimates of Cain & Torosow from monograph #3, Who Pays The Taxes?

See table 71, p. 408, *infra*.

for persons in the lower income brackets. Progressive taxes in 1930 brought in 72.2 percent of all revenues, but decreased in 1938 to 54.6 percent; regressive taxes, on the other hand, increased from 14.2 percent in 1930 to 28.8 percent in 1938. In actual dollars progressive taxes yielded in 1938 an excess of \$725,796,000 over its 1930 figure while regressive taxes yielded \$1,183,808,000 more than in 1930.

The growth of sales taxes has been a major manifestation of the trend toward increasingly regressive State tax systems. Sales taxes were first enacted as emergency revenue measures to finance the tremendous relief needs in the depression's depths, which had been accompanied by catastrophic declines in property and income tax receipts. A negligible factor in the revenues of 6 States in 1932, State sales taxes, spread to 27 States in 1937. Although the number of States levying sales taxes has since decreased to 22, higher rates, better enforcement, and the supplementary use tax have raised the aggregate annual revenue to \$485,000,000. The trend has been levied, but not reverse. The "emergency" character of the tax is disappearing, but the defense program has renewed discussions of the revenue possibilities inherent in sales taxes.

The imposition of use taxes and decisions making the tax applicable to all products used in the State penalize out-of-State competition. But the effect on business generally is less direct, depending in part on the elasticity of demand for the product, on general purchasing power, and the degree of retail competition—as well as the extent of enforcement.

Even though the laws usually require that sales taxes be passed on to consumers, retailers are not always able to do so. As purchasing power contracts in the downward swing of the business cycle, the retailer may have to absorb his sales tax by cutting prices and profits. Regardless of the cycle, in a low-income community with rigidly limited cash available, the retailer may likewise have to absorb the sales tax, since the consumer can pay it only by decreasing his purchases and the retailer's volume. The retailer may find it advisable to conserve his volume by lowering his prices and unit margin.

The regressiveness of sales taxes is sharpened far beyond its apparent extent by two characteristics of the laws as written—(a) the exemption of services, which account for a progressively larger proportion of the spending of higher income groups, and for almost none in the lowest income families; and (b) the rate schedules, which in fact favor the bigger consumers who can afford to buy in quantities to minimize their tax, while low-income consumers frequently must buy in dribblets so that their tax, at a minimum of 1 cent, may be more than three times the prescribed legal rate. To counteract this undesirable feature food has been partially exempted, and tokens or punch cards have been introduced in some States to cover fractional purchases at a proper proportionate rate. But no exception can do more than ameliorate the regressiveness inherent in any levy based on spending rather than income.

It should be noted that property owners, in whose behalf sales taxes have been extended, suffer from sales taxes in inverse ratio to the productivity of the property. The poorer the property, the lower is its owner's income (assuming he has no other income), and the more he overpays in sales taxes. Nor is the farmer an exception, as farmers

too, buy a considerable portion of their needs at retail and an even greater proportion of their expenditures is for goods rather than services. Unless agricultural purchases be specifically exempted, the farmer benefits little if at all from the substitution of a sales tax for property taxes.

The intended proportionality of property taxes has largely evaporated thanks to the multiplicity of overlapping taxing units (175,000 in all), assessment practices, and the variety of forms of wealth and income, difficult to evaluate on a unified base. Property taxes are no longer valid as a measure of ability to pay.

Actual studies have shown that property assessments on industry and business are generally regressive, that is, assessed value varies inversely with business size and the profitability of a business. This does not always mean that more profitable or bigger businesses pay smaller property taxes; it means only that the ratio of assessment value to true value declines with increases in the size and worth of the business property. The inverse relationship of assessment to true value largely holds true for residential property and farms as well. A well-defined trend of the last few years has cut this factor of regression arbitrarily for some classes by exempting homesteads, small homes, or owned farms valued below a certain level, from total or partial payment of the tax. The rejection by referendum in 1940 of numerous proposals to introduce or extend such exemptions in many States and localities suggests a cessation of the trend.

Somewhat different in effect has been another depression-born tendency to freeze property tax rates by writing maxima into State constitutions. This practice has resulted in higher assessments in some cases, in near breakdowns of Government services in a few instances, and in a general scramble among pressure groups to prevent raised assessments on their properties. The most powerful lobbies can get the most favorable results; railroads in New Jersey, public utilities elsewhere, have litigated for years against higher assessments on their properties, and sometimes have forced local governments to compromise for far less than the tax levied. When one or two large owners possess the most valuable properties in a county or other subdivision, such maneuvers introduce a serious element of instability into the unit's fiscal program. Conversely, dependence on one source of revenue may lead to erratic changes of rate without regard to equity.

Most of the so-called reforms in the property tax have directly or indirectly heightened the regression of the whole tax system. The exemption of small home owners benefits primarily a low middle income urban group. In the case of tenant farmers such tax exemption can in fact be detrimental, as it may lead to higher assessments on the farms they lease, and consequently higher rents. A parallel case is the urban poor, relatively few of whom are home owners. If consumer taxes are extended as a substitute for the revenue lost through property tax exemption, the tax burden is increased on the lowest income groups. The exemption of new industries for a certain number of years from payment of property taxes likewise shifts the duty of supplying revenue to other groups, often less able to pay than the business so privileged.

The Federal tax system has relied for its revenue on progressive taxes to a greater degree, though its collections of regressive taxes, such

as customs, manufacturer's excises, and latterly on pay-rolls (social security taxes), have been continued. Pay-roll taxes, of course, were enacted for the purpose of financing unemployment and old age benefits. The relationship of tax collection to expenditures must not be overlooked, as has been repeatedly stressed in preceding sections of this chapter. Progressive taxes brought in 52.6 percent of the 1938 Federal revenues, and nonprogressive taxes 47.4 percent of them. The State and local governments, on the other hand, have placed their principal reliance on regressive taxes, though a limited revenue from income and estate taxes is collected as well.

The growing disparity in the revenue returns from regressive and progressive taxes testifies that it is the consuming public, and particularly the lower income portion of it, which has borne the greater share of the increase in the tax burden. The newer taxes have been levied on a basis not of ability to pay but of inability to resist the imposition of additional indirect taxes.

Consumption and Savings.

The great bulk of Federal, State, and local taxes, from the middle decades of the nineteenth century to the second decade of the twentieth, has fallen on consumption. Savings had not been subject to taxation except for a short period during and immediately following the Civil War, when the Federal Government levied a tax on incomes, and indirectly immediately after the introduction of the property tax which fell mostly on the wealthy landowners.

The unequal distribution of the tax burden between consumption and savings has been the direct result of an uninterrupted expansion in our geographic and economic frontiers. A vast American continent was standing ripe for development. There were mines to be sunk, mills to be put up, towns and cities to be laid out, railroads, bridges, dams, and powerhouses to be built. Vast foreign loans were floated and the speed and rhythm of this huge construction program had for its only limitation the supply of available capital. As a stimulant to the accumulation of funds for investment purposes the legislatures of the nineteenth century had accorded to savings every preference in their power to grant.

Today's economic order presents another picture altogether, as has been pointed out in previous sections. The past decades have been marked by a steady and substantial shrinkage in actual investment opportunities, or, conversely, the accumulation of idle capital or "over-savings." This transformation in the function of savings in the domestic economy indicates that the position of special privilege it has enjoyed under the American tax system is justified no longer.

But though the status of savings vis-a-vis consumption now rests on a new order of things, the levying of taxes is to a considerable degree continuing with the old order in mind. Henry Dennison estimates in his volume, *Toward Full Employment*, that somewhere between two-thirds and four-fifths of today's tax revenues of all Federal, State, and local governments are a charge on consumption, and only between one-third and one-fifth on savings.

The only present day taxes curtailing savings in any measurable degree are those levied on income by the Federal Government as well as by 34 States and those levied on inheritance by the Federal Government and the 48 States. Colm and Lehman in their study, *Eco-*

conomic Consequences of Recent American Tax Policy, estimate that approximately \$1,000,000,000 of the savings of individuals with incomes above \$5,000 has been curtailed by the Revenue Act of 1936 over the rates of the 1928 act, while the estate and gift taxes of the Revenue Act of 1936 curtailed savings by approximately \$300,000,000 over the rates of 1928.

Hence, the savings of persons in the upper income groups would be greater by a billion and a quarter dollars had income and estate taxes remained at the 1928 level and the distribution of income at the 1930 level. This sum represents a reduction of 25 percent in the savings capacity of these income groups.

In offset to this reduction the recently enacted Federal and State pay-roll taxes have served to create compulsory savings. If the increase in savings from this latter source were to be subtracted from the sum of every personal tax, the net balance would show a reduction of between one-half to three-quarters of a billion dollars in the national supply of capital or between 4 and 7 percent of the total supply.

The conclusion should not be drawn from these figures that there exists a growing scarcity of investment capital. For, not only has the center of gravity of the capital pyramid been moving downward, but the role of institutional savings has been markedly increased.

Distribution of Income and Wealth.

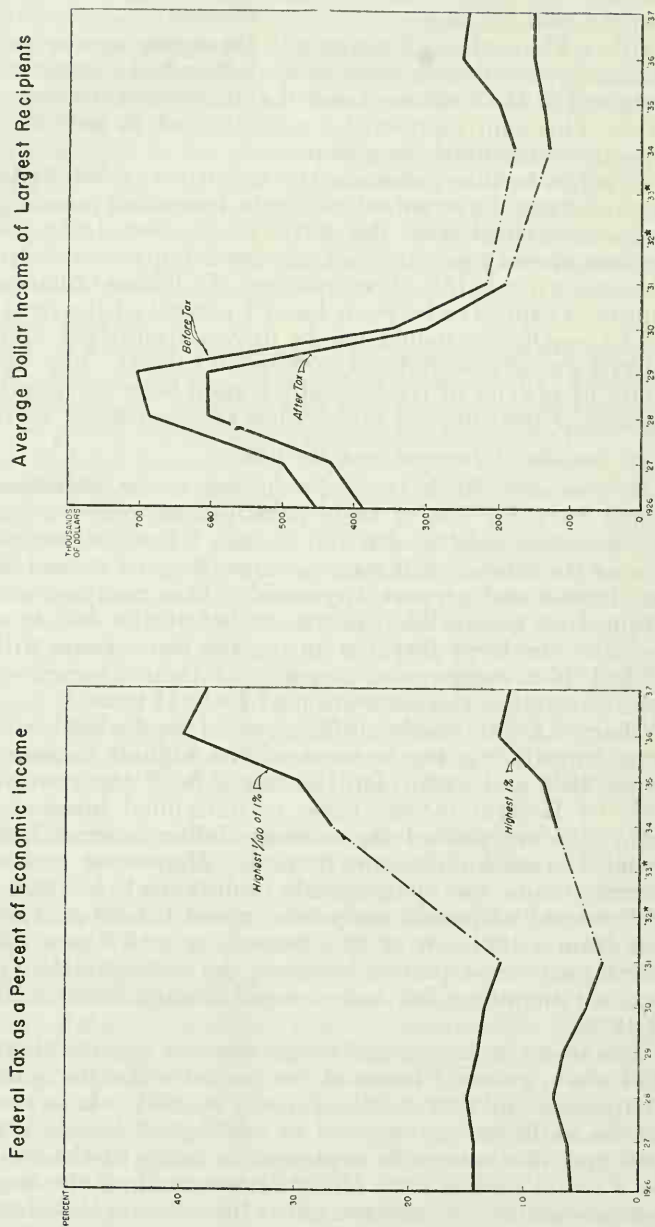
Income and death taxes (including estate, inheritance, and gift taxes) have for one of their principal objectives a readjustment in the distribution of wealth and income. Even at low rates the operation of these taxes will serve as something of an equalizing agent in the income and property pyramid. This readjustment process had attained no perceptible dimensions before the decade of the thirties. Its effects on large fortunes during the latter years will become more evident if a comparison is made of their average dollar incomes before and after the imposition of Federal taxes.

Chart XIX shows the shifting role of the Federal individual income taxes in reducing the incomes of the highest income recipients between 1926 and 1937. On the left side of the chart is plotted the ratio of Federal income taxes to individual incomes, while on the right side are plotted the average dollar incomes before and after Federal taxes for the same period. The recent increase in Federal income taxes was particularly substantial for the highest $\frac{1}{100}$ of 1 percent of income recipients, where the ratio of taxes to income rose from a 1931 low of 12.1 percent to a 1936 peak of 39.9 percent. During this same period, however, the average dollar amount of net income remaining after taxes ranged from \$189,000 in 1931 to \$150,000 in 1936.

The sharp decline in individual incomes occurred between 1929 and 1931 when, it should be noted, the tax ratio also declined, falling from 14.3 percent in 1929 to 12.1 percent in 1931. It is obvious that the decline in the income received by the highest income brackets between 1929 and 1936 cannot be explained in terms of the recent increase in the Federal income tax. Other factors, such as the declining interest rate, are primarily relevant. It is likewise obvious that even in 1937, or today for that matter, tax rates on the individuals in the highest income brackets were not substantially affected by revenue laws. The average dollar income after income taxes of the largest recipients is

FEDERAL INCOME TAX AND AVERAGE DOLLAR INCOME OF LARGEST INCOME RECIPIENTS 1926-1937

CHART XIX



* No data available
 Source: Compiled from Statistics of Income by Adolph Goldsmith, Monograph No. 4.

still quite large, amounting to \$150,000. The average incomes in recent years would be about 15 percent higher were prices at the same level as during the late twenties.

Furthermore, the figures quoted above are based on the tax returns of individuals and not on the joint returns of families. It is common practice in the upper income brackets for a man's wife and children to file separate returns insofar as his investment income is concerned to secure tax reduction. Since unearned income comprises a considerable share of net income, in these groups the filing of separate returns serves to reduce the individual return substantially. The prevalence of this tendency is proof enough that the magnitude of income after taxes is substantially understated.

The degree to which Federal and State inheritance taxes had reduced the size of estates in 1937, is demonstrated in charts XX, XXI, XXII, computed from the Statistics of Income. The trends and magnitudes involved in chart XX made three different scales necessary in its construction. It expresses the average dollar amount of the net estate before and after taxes. It indicates that below the \$300,000 level inheritance taxes have not taken more than 10 percent of the estate; at the \$2,000,000 to \$3,000,000 level, not more than 20 percent; at the \$10,000,000 to \$20,000,000 level not more than 35 percent.

Chart XXI plots the distribution of the net estate for exemptions, taxes, charitable bequests and funeral and administrative expenses. It offers evidence of the striking disparity between the existing statutory and effective rates. Although there is a statutory rate of 67 percent on estates from \$10,000,000 to \$20,000,000 the effective rate on these same estates has not been in excess of 35 percent.

Chart XXII shows the substantial preference which the present tax laws extend to inter vivos gifts in contrast to transfer by estate. It is indeed an appropriate question whether Congress intended that the differential treatment of transfers under the death taxes should be so marked as between transfer after and before death.

These charts provide a striking picture of the effects of present day death taxes. There is nothing to bear out the often expressed fear that their rates have been so exorbitant as to vitiate great fortunes. The death taxes have certainly not until very recently (1934) foreclosed the possibility of very large increases in those income and property inequalities which today exist in this country.

The Investor.

The recent trends in Federal taxation have been criticized on the ground that they have deprived the individual investor of the incentive to invest. It is alleged that capital is on a sitdown strike against the high surtax rates and proof is offered in the reduced supply of new security issues during the thirties.

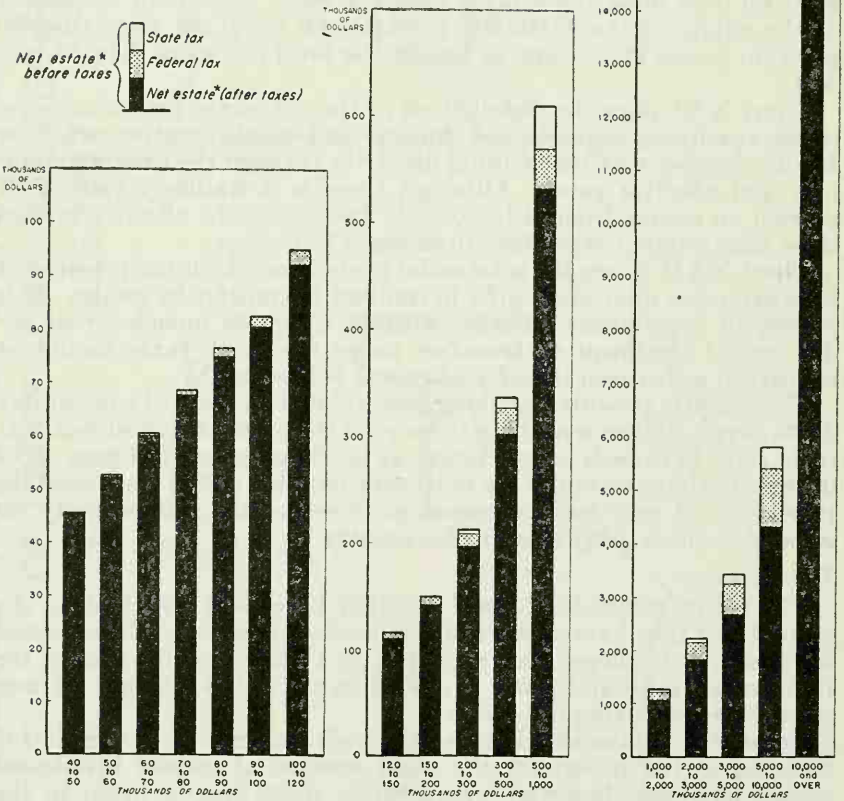
Before the relationship between the high surtax rates and capital is accepted as the reason for the small amount of private investment capital available, however, consideration must first be given to the degree in which the funds of the individual investor are required for an increase in production. Testimony was presented before the Temporary National Economic Committee—prior to the present defense emergency, it should be stressed—which is impressive enough to warrant the belief that the largest corporations have little need in the

CHART XX

AVERAGE DOLLAR MAGNITUDE OF
ESTATES BEFORE & AFTER
STATE AND FEDERAL TAXES

By Gross Estate Size Classes

1937



*Gross estate less debts.
SOURCE: compiled from Statistics of Income.

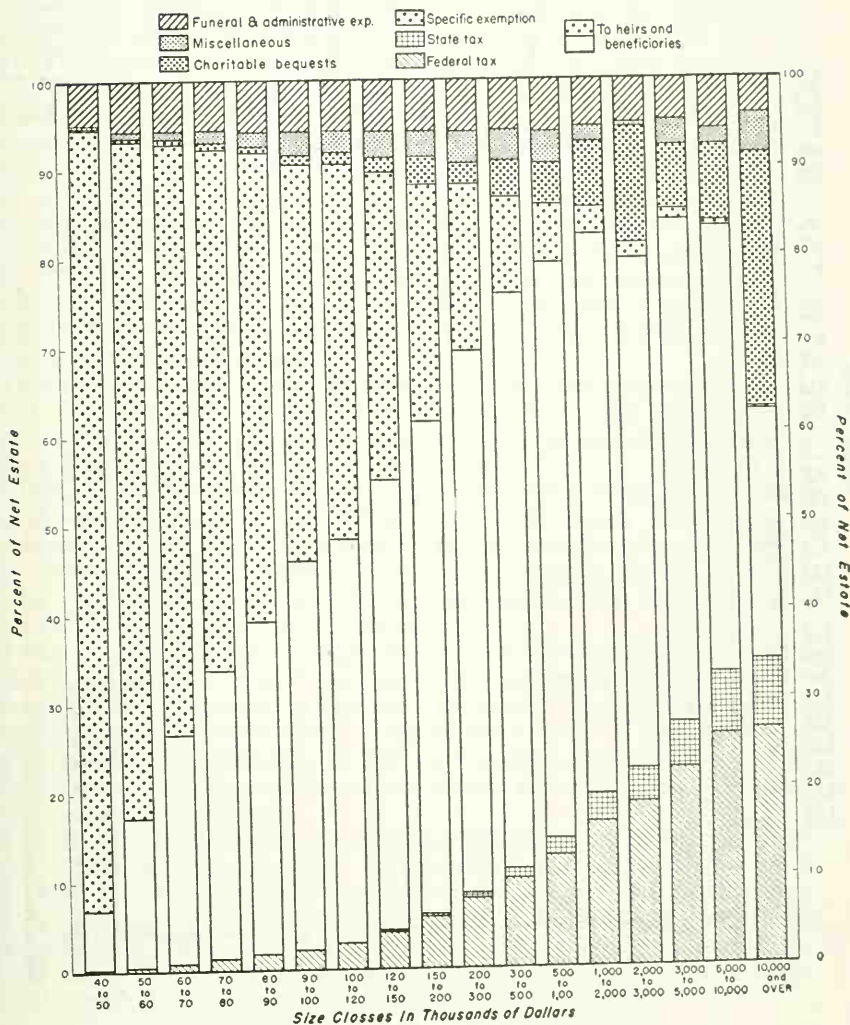
See table 73, p. 409, infra.

CHART XXI

DISTRIBUTION OF NET ESTATES

By Gross Estate Size Classes

1937

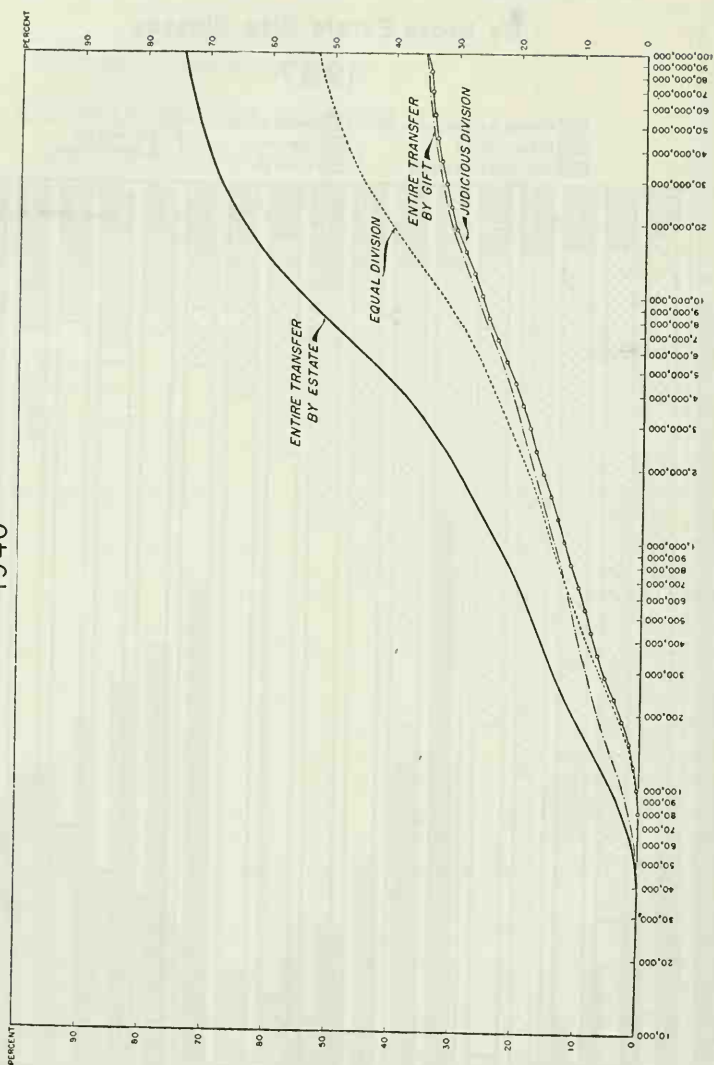


Note: Net estate is gross estate less debts.

Source: Compiled from Statistics of Income for 1937, Pt. I

See table 74, p. 410, *infra*.

CHART XXII
EFFECTIVE FEDERAL DEATH TAX RATES
 UNDER VARIOUS METHODS OF TRANSFER
 1940



See table 75, p. 410, infra.

near future of applying to the capital market for fresh funds. These corporations have made themselves self-financing, that is, the allowances which they have set aside for depreciation and depletion plus their undistributed profits have been great enough in themselves to finance all their current peacetime requirements for expansion. The increase of this tendency may in itself be explanation enough for the steady decrease during recent years in the number of new corporate securities for large corporations.

It is frequently alleged that the skyrocketing in surtax rates of Federal income and estate taxes has virtually confiscated the income of the upper bracket taxpayer. The statutory rates for the various revenue acts since 1913 have been plotted in chart XXIII for the individual income tax and in chart XXIV for the estate tax.

The surtax rate fixed by the statute presents a somewhat misleading picture for it is not identical with the actual rate paid by the taxpayer. On incomes of between \$1,000,000 and \$1,500,000, for instance, the statutory surtax rate was 73 percent in addition to the 4 percent normal tax. By this it is meant not that the full income is subject to this rate but only the amount falling between \$1,000,000-\$1,500,000, while the sum under \$1,000,000 is in varying degree subject to lower surtax rates. The Treasury Department has reported that the taxpayer in the \$1,000,000-\$1,500,000 bracket paid an effective tax rate in 1938 of 45.86 percent of his net income in contradistinction to the statutory rate of 73 percent on this same income.

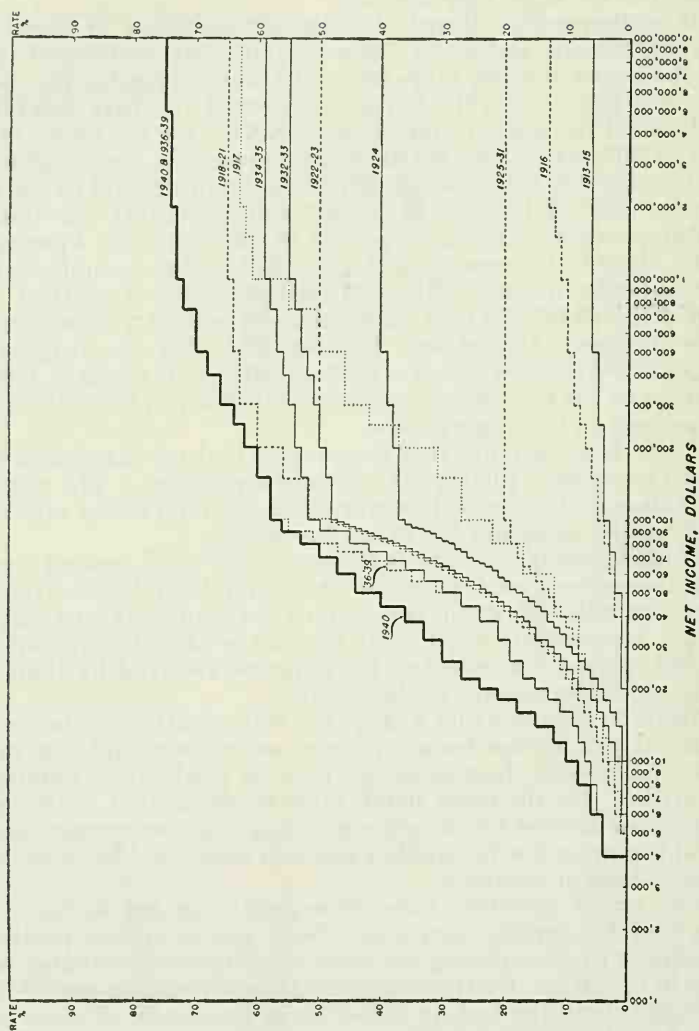
There is no denying that the present Federal tax system has interposed a number of barriers to private investment. The responsibility for this condition rests, however, upon the interacting relationship of high surtax rates and tax-exempt securities.

Constitutional necessity is the commonly cited ground for continuing the present exemption of State and local bonds from Federal taxation, although recent decisions of the Supreme Court may question this. A commonly overlooked fact is the almost universal tendency of the various States to tax fully income received by their residents from securities issued by other States.

Table 65 indicates that a taxpayer with a million-dollar income who received any income from 5 percent securities would receive no more net income from those securities than he would from holding exempt securities. On the other hand, table 66 shows that if this same taxpayer had derived his income out of 5 percent tax-exempt securities he would be in no less favorable a position than a holder of 23.15 percent nontax-exempt securities.

The larger investors have consequently tended to favor the purchase of tax-exempt securities. Such would appear particularly to have been the case during the years when the undistributed profits tax was in operation, for the large taxpayer during this period could find no loophole in the law by investing in the stocks of those companies which had retained a high proportion of their savings. If the individual stockholder had no taxes to pay the company did.

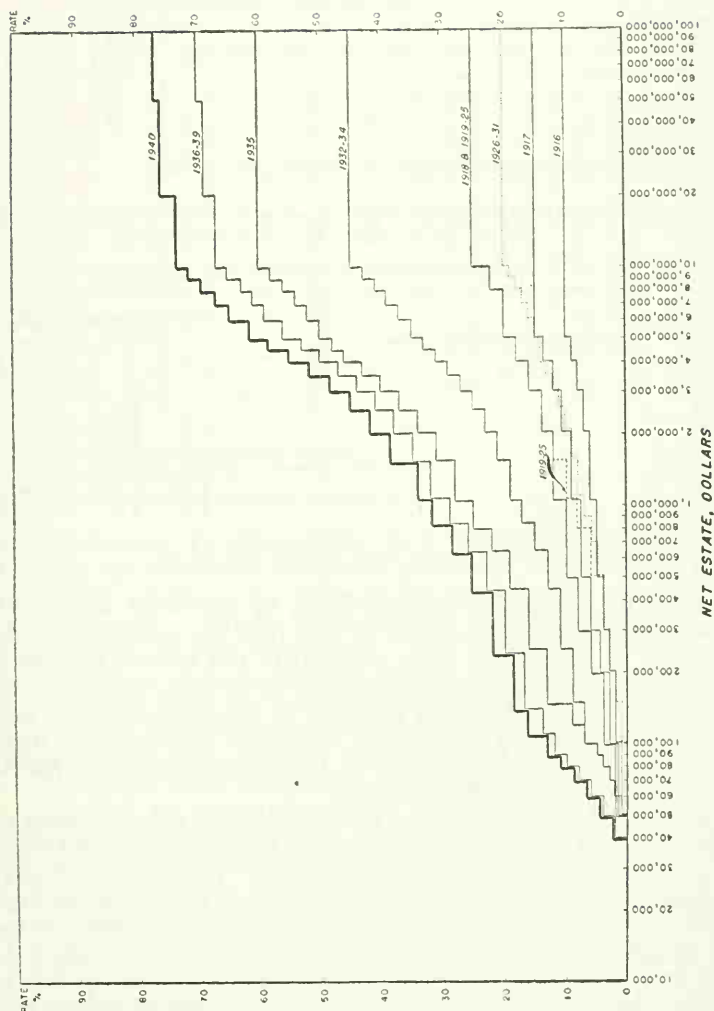
CHART XXIII SURTAX RATES ON INDIVIDUAL INCOMES 1913 to 1940



SOURCE: "Sources and Rates of Federal Taxation", correct to 1-1-39, USGPO 1939, supplemented by rates from current statute.

See table 76, p. 411, infra.

CHART XXIV FEDERAL ESTATE TAX RATES 1916 to 1940



SOURCE: "Sources and Rates of Federal Taxation", correct to 1-1-39, U.S.G.P.O. 1939, supplemented by rates from current statute.

See table 77, p. 412, infra.

TABLE 65.—*Annual yield required on a wholly tax-exempt security to equal the net yield after Federal income taxes, on a taxable security*

[A married man with no children or other dependents]

Net income from other sources	Gross yield on taxable security, percent			
	2	3	4	5
\$5,000	1.91	2.87	3.82	4.78
\$10,000	1.74	2.60	3.47	4.34
\$20,000	1.45	2.18	2.90	3.63
\$50,000	1.03	1.55	2.06	2.58
\$100,000 .....	.68	1.02	1.33	1.70
\$500,000 .....	.50	.76	1.01	1.26
\$1,000,000 .....	.43	.65	.86	1.08

Source: Treasury Department, Division of Tax Research, Nov. 15, 1940.

TABLE 66.—*Gross annual yield required on a taxable security to equal the net yield on a wholly tax-exempt security*

[A married man with no children or other dependents]

Net income from other sources	Yield on tax-exempt security, percent				
	1	2	3	4	5
\$5,000	1.05	2.09	3.14	4.18	5.23
\$10,000	1.15	2.30	3.46	4.61	5.76
\$20,000	1.38	2.76	4.14	5.52	6.90
\$50,000	1.94	3.88	5.81	7.75	9.69
\$100,000	2.94	5.88	8.82	11.76	14.71
\$500,000	3.97	7.94	11.90	15.87	19.84
\$1,000,000	4.63	9.26	13.89	18.52	23.15

Source: Treasury Department, Division of Tax Research, Nov. 15, 1940.

Table 67 shows the striking flight by the large investor in recent years out of corporate securities and into tax-exempt securities. For example in 1929 more than two-thirds (69 percent) of estates over \$10,000,000 were invested in corporate securities; only one-seventh (16 percent) of the estates was invested in tax-exempt securities; in 1937 for the same size of estate only one-third was invested in corporate securities, while the proportion of tax-exempt securities had increased to almost two-thirds (62 percent).

The likelihood is growing that persons in easy circumstances will continue to be the principal holders of tax-exempt securities insofar as they act in their economic self-interest. There are still many individuals to whom the psychological factor of perpetuating family association with specific business enterprises may outweigh the undoubted advantages of converting such interests into tax-exempt securities. The exemption of such securities from taxation may operate as an important factor in accentuating present inequalities in the distribution of wealth and income. This possibility arises especially because the bulk of tax-exempt securities is issued by State and local governments, which are generally dependent upon nonprogressive taxation for the revenue from which interest payments to bondholders must be made. There is real danger that this exemption may operate to transfer income from individuals in the lower brackets, upon whom the weight of State and local taxation typically falls, as was pointed out earlier, to

individuals in the highest brackets who typically own the tax-exempt securities.

TABLE 67.—*Distribution of tax-exempt and corporate securities of estates, 1929, 1932, and 1937, by size classes of net estate*

[Securities as percentage of gross estate]

Size classes (net estate)	Wholly tax-exempt securities			Partially tax-exempt securities			Capital stock			Other bonds		
	1929	1932	1937	1929	1932	1937	1929	1932	1937	1929	1932	1937
Under \$50,000 ¹	1.52	3.49	1.49	1.75	3.22	3.44	31.95	29.07	27.29	8.22	8.99	5.96
\$50,000 to \$100,000.....	2.25	4.05	2.47	1.77	3.29	4.01	26.24	32.14	30.29	8.58	10.09	7.19
\$100,000 to \$200,000.....	3.08	6.15	3.67	1.84	3.13	4.25	38.31	29.57	37.92	9.10	10.52	8.84
\$200,000 to \$400,000.....	4.03	8.76	6.02	1.72	2.64	4.93	43.08	36.37	43.08	9.04	9.81	9.08
\$400,000 to \$600,000.....	3.77	10.71	8.01	1.24	3.70	4.09	49.33	38.74	46.64	8.09	8.51	9.48
\$600,000 to \$800,000.....	3.50	14.14	10.06	1.24	2.22	3.29	53.76	38.70	51.42	7.14	9.89	6.17
\$800,000 to \$1,000,000.....	7.75	18.61	11.70	1.65	1.71	2.49	51.64	45.73	54.14	7.04	5.29	7.34
\$1,000,000 to \$1,500,000.....	5.27	24.00	14.64	1.17	2.42	4.11	49.98	37.37	48.44	6.06	10.14	6.71
\$1,500,000 to \$2,000,000.....	6.72	23.00	14.54	.87	1.47	4.14	60.92	48.20	56.90	5.70	6.07	3.94
\$2,000,000 to \$2,500,000.....	7.42	28.34	10.84	.87	6.69	1.88	59.73	30.21	63.27	5.29	4.19	3.12
\$2,500,000 to \$3,000,000.....	6.76	36.78	17.84	1.07	2.40	1.75	57.96	19.50	57.98	6.15	9.41	3.45
\$3,000,000 to \$3,500,000.....	10.89	46.48	7.76	.02	1.13	2.80	58.80	31.65	56.54	5.84	1.71	1.05
\$3,500,000 to \$4,000,000.....	17.71	30.85	24.90	1.28	1.44	2.36	61.34	38.84	58.68	3.31	.61	.60
\$4,000,000 to \$4,500,000.....	15.31	37.11	20.32	1.42	.97	.58	56.13	37.40	61.45	3.84	6.56	3.12
\$4,500,000 to \$5,000,000.....	19.17	34.12	33.46	.25	.80	.20	66.58	13.87	56.86	3.32	5.19	.73
\$5,000,000 to \$6,000,000.....	3.87	—	18.38	.11	—	—	80.18	60.23	56.09	1.87	13.31	1.87
\$6,000,000 to \$7,000,000.....	11.24	20.74	36.58	.10	—	—	57.49	81.10	37.49	3.48	.83	10.43
\$7,000,000 to \$8,000,000.....	13.57	45.28	—	.33	.17	—	75.05	20.43	—	.34	12.56	—
\$8,000,000 to \$9,000,000.....	22.49	—	33.07	.73	—	.58	28.97	—	55.83	.69	—	1.49
\$9,000,000 to \$10,000,000.....	16.14	—	57.24	.38	—	4.97	62.70	—	31.63	6.32	—	1.81
\$10,000,000 and over.....	—	—	—	—	—	—	—	—	—	—	—	—

¹ 1937 figures include only \$40,000 to \$50,000 size classes.

(—) Dashes indicate no returns or return of amount under \$500.

Source: Computed from Statistics of Income for respective years.

Probably no feature of the income tax laws has excited more popular debate than the tax treatment of capital gains and losses, unless it be the undistributed profits tax. Changes in the law have been made at frequent intervals. Whole features have been dropped out only to be restored later in full or in part. The contention that capital gains are not income and accordingly should not be taxed as income has never won favor with the American layman and legislator, for to them it has always seemed rather ridiculous that a person may make substantial money income without ever paying a tax on it. Capital gains have, however, been frequently recognized as a special source of income that call for special treatment under the tax laws.

The 1938 Revenue Act restored a number of the features that had characterized the various revenue acts of the twenties including the full deduction of long-term capital losses. The capital gains on holdings of less than 18 months' duration were treated as speculative profits and not as investment gains, to be subject in full to the normal income and surtax charges. On holdings of between 18 and 24 months' duration, according to the statute, 66 $\frac{2}{3}$ percent of the capital gain was subject to a flat rate tax of 30 percent, which is the equivalent to a tax of 20 percent on the entire amount; on holdings of more than 24 months only 50 percent of the gain was to be subject to the flat 30 percent tax, which is the equivalent to a tax of 15 percent on the entire amount.

This is a more generous treatment of capital gains than that found at any time in the history of the Federal income tax. The present 15 percent tax on long-term capital gains is but 2 $\frac{1}{2}$ percent over the 12 $\frac{1}{2}$

percent tax which prevailed through the decade of the twenties, but then (1925-31) the maximum surtax rate was 20 percent while now it ranges up to 75 percent. The maximum preference shown capital gains during the middle and late twenties was 7½ percent (difference between 20 percent and 12½ percent) while now this preference amounts to 60 percent (difference between 75 percent and 15 percent).

The present flat 15 percent tax on long term capital gains, actually introduces a seriously limiting element into the progressive income tax structure, as shown in chart XXV based on the effective tax rate in 1938 as reported by the Treasury Department.

The justification for the preferential treatment of long-term capital gains has been made in terms of equity, revenue productivity, and economic policy. It is argued that capital gains accrue over a period of time and consequently should not be taxed in full at the time of realization. This is in fact a criticism of the artificiality of the calendar year (since income cannot constitutionally be taxed as it accrues but only as it is realized) for determining an individual's income tax liability, and is by no means peculiar to capital gains.

A substantial part of long-term capital gains derived from corporate securities—such securities account for 80 percent of all long-term capital gains—is the result of the accumulated undistributed profits of corporations which, being undistributed, have escaped the individual surtax.

The second argument in favor of the preferential taxation of capital gains is put in terms of revenue productivity. A low tax rate encourages wealthy individuals to realize their capital gains whenever market conditions are most feasible, while high tax rates "freeze the capital market" by discouraging wealthy individuals from realizing their gains. In the latter case realized capital gains fall in magnitude with severe repercussions upon tax revenues. The problem is the perennial one of where to draw the line, but it seems that the present 15 percent could be substantially raised without serious revenue consequences.

The economic policy argument is that wealthy individuals are deprived of their incentive to supply "venture capital," because if they win the tax collector insists upon taking their profits, while if they lose they alone bear the loss. The result is stagnation unless capital gains are preferentially taxed.

But there are obviously many factors involved, not least among which is the question of the extent to which private individuals may continue to serve as suppliers of risk capital. The decade when capital gains and losses were very favorably recognized in the Federal tax laws culminated in a stock market collapse and an economic depression unparalleled in our history. It no more follows that the preferential tax treatment of capital gains caused the stock market debacle than that the removal of this tax preference in 1934 froze the capital market or brought about the recession of 1937.

Corporate Profits.⁴

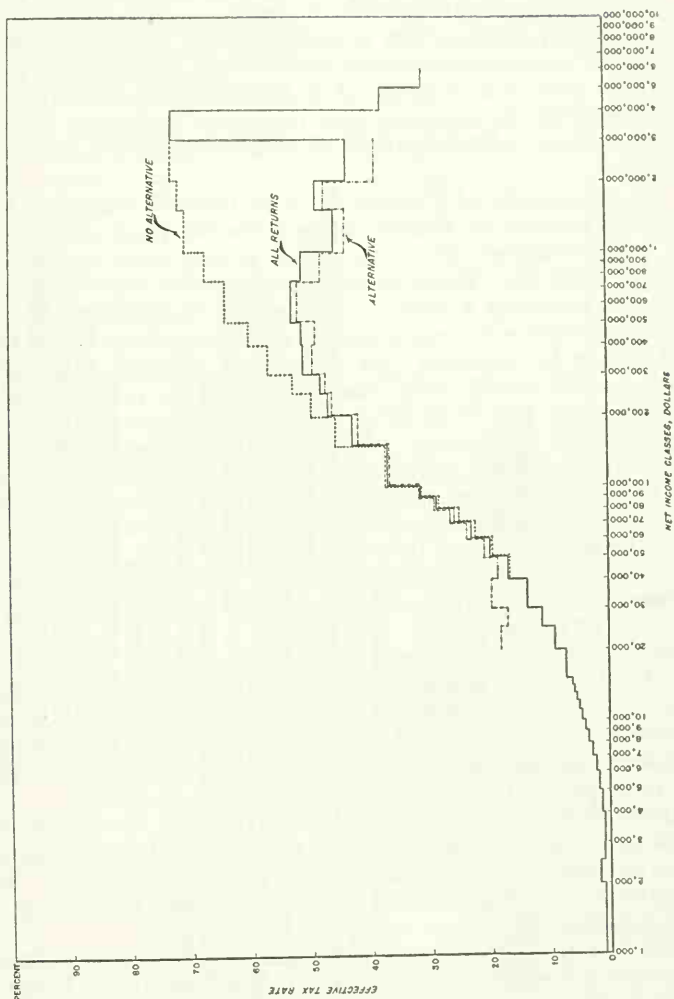
The amount of Federal income taxes paid by corporations and the amount of corporate income available for reinvestment in or by cor-

⁴ See TNEC Monograph No. 9, *Taxation of Corporate Enterprise*, by Clifford J. Hynning.

CHART XXV

EFFECTIVE TAX RATE ON INDIVIDUAL INCOMES IN 1938 BY INCOME SIZE CLASSES

For Returns With Alternative Tax (on capital gains), Returns With No Alternative Tax, & For All Taxable Returns



Source: Statistics of Income.

See table 78, p. 413, *infra*.

porations or for distribution to individual investors is shown graphically in chart XXVI for all corporations reporting net income in the years 1916 through 1937. The length of the bar for any given year shows, in billions of dollars, the amount of (1) Federal income taxes, (2) corporate profits paid out as cash dividends (unavailable prior to 1926), (3) corporate profits after taxes and dividends, (4) charges for depreciation and depletion, and (5) interest payments.

In 1937, after paying \$1,270,000,000 in income taxes (including the excess-profits and undistributed-profits taxes) to the Federal Government, corporations had at their disposal for plant replacement and industrial expansion and for distribution to investors some \$10,700,000,000. This sum consists of \$6,100,000,000 profits after all charges, \$2,900,000,000 depreciation and depletion additions to reserves, and \$1,700,000,000 interest payments to bondholders and other nonequity investors.

The magnitude of Federal taxes in 1936-37 compares fairly closely with the amount of Federal taxes collected from corporations during the later twenties, when corporate profits were considerably larger than in 1936-37. Taxes on corporate profits were largest during the war era, reaching a peak in 1918 of \$3,159,000,000, when the volume of profits was more comparable to that prevailing in the later thirties.

As is to be expected, the volume of Federal corporation income taxes varies closely with the volume of corporate profits. Profits (after taxes) fell from \$10.9 billion in 1929 to \$2 billion in 1932, or a decline of 89 percent. In the same period taxes declined from \$1.2 billion to \$400 million, or 67 percent. Meanwhile, the revenue act had been changed, increasing the tax rate from 11 to 13¾ percent and eliminating the specific credit of \$3,000 available to corporations with small incomes. Between 1932 and 1937 profits (after taxes) rose from \$2 billion to \$6.1 billion, an increase of 205 percent. Taxes increased in the same period from \$400 million to \$1.3 billion, or an increase of 224 percent.

During the depression the volume of corporate profits dropped more rapidly than the reported yield of Federal corporate income taxes. With the improvement of business conditions, Federal corporation income taxes tended to increase somewhat faster than corporate profits, although the lag between taxes and profits was much narrower during the later period than during the depression decline.

Have Federal taxes on corporates wiped out the incentive to expand or to take risks? The foregoing paragraphs have suggested that the ratio of taxes to profits has not been prohibitively high. In 1937 they amounted to 17.7 percent of corporate profits (excluding intercorporate dividends).

But the data have not shown whether corporate profits after taxes represent a "reasonable" return on invested capital. Is the rate so low as to make it useless for business enterprises to carry on? Table 68 throws some factual light on this question, leaving the reader to judge what constitutes a "reasonable" rate of return. The table is taken from an S. E. C. compilation of the profits data for 1,710 registered corporations for 1937, classified by industries and by the rate of profit. The measurement of profitability is that of profits taken after Federal taxes and all other charges in relationship to tangible net worth. Both the number of corporations and the dollar amount (in thousands) of profits is given.

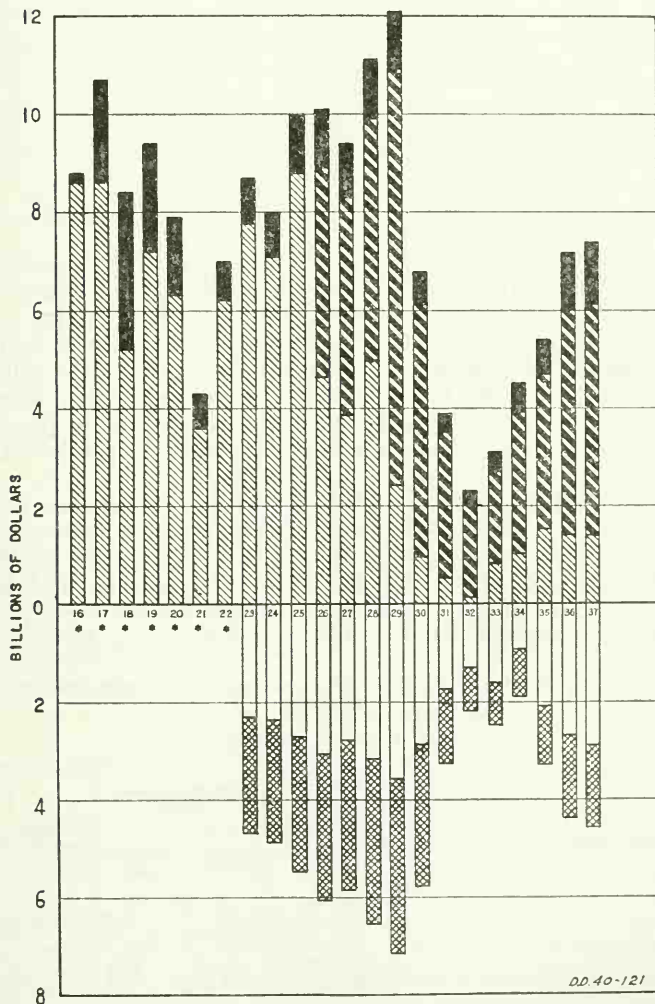
CHART XXVI

FEDERAL TAXES AND CORPORATE INCOME AVAILABLE FOR REINVESTMENT OR DISTRIBUTION TO INDIVIDUALS, 1916-37 (NET-INCOME CORPORATIONS ONLY)

LEGEND

- FEDERAL CORPORATE INCOME TAXES (INC. EXCESS-PROFITS TAXES FOR 1917-21 AND 1933-37 AND UNDISTRIBUTED PROFITS TAX FOR 1936-37)
- ▨ CORPORATE PROFITS (EXCLUDING INTER-CORPORATE DIVIDENDS) AFTER PAYMENT OF FEDERAL INCOME TAXES & DIVIDENDS
- DEPRECIATION AND DEPLETION (INCLUDING AMORTIZATION)
- ▤ INTEREST PAID
- ▥ CASH DIVIDENDS PAID OUT TO INDIVIDUALS (UNAVAILABLE PRIOR TO 1926)
- UNAVAILABLE

SOURCE: STATISTICS OF INCOME FOR RESPECTIVE YEARS



DEPARTMENT OF COMMERCE

TABLE 68.—*Profitability of 1,710 corporations registered with Securities and Exchange Commission, 1937*

	Loss	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	Over 25	Total profit-able	Total
1. Number of corporations:									
All	329	310	363	269	173	105	161	1,381	1,710
Extractive	114	55	22	14	8	8	15	122	236
Manufacturing	138	143	230	178	133	77	123	884	1,022
Merchandising	22	28	43	41	14	13	7	146	168
Other	55	84	68	36	18	7	16	229	284
2. Percent distribution of profit-able corporations:									
All		22.4	26.3	19.5	12.5	7.6	11.7	100	
Extractive		45.1	18.0	11.5	6.6	6.5	12.3	100	
Manufacturing		16.2	26.0	20.1	15.0	8.7	13.9	100	
Merchandising		19.2	29.5	28.1	9.6	8.9	4.8	100	
Other		36.7	29.7	15.7	7.9	3.1	7.0	100	
3. Amount (in millions):									
All	90	238	1,049	741	684	503	320	3,535	3,445
Extractive	27	7	12	14	11	18	34	96	69
Manufacturing	37	61	729	576	551	424	262	2,603	2,566
Merchandising	6	8	36	101	40	34	3	222	216
Other	20	162	272	50	82	27	21	614	594
4. Percent distribution of profits:									
All		6.7	29.7	21.0	19.4	14.2	9.0	100	
Extractive		7.3	12.5	14.6	11.5	18.7	35.4	100	
Manufacturing		2.3	28.0	22.1	21.2	16.3	10.1	100	
Merchandising		3.6	16.2	45.5	18.0	15.3	1.4	100	
Other		26.4	44.3	8.1	13.4	4.4	3.4	100	

Source: Securities and Exchange Commission, Survey of American Listed Corporations, table 758.

In manufacturing, 37.6 percent of the corporations reporting net income had profits over 15 percent on their net worth. The profits of these manufacturers amounted to almost half (47.6 percent) of the total profits of corporations with net income, and these figures, it should be recalled, are net after Federal taxes. During the same year money could be borrowed for industrial purposes at a little more than 2 percent. Obviously the Federal tax system can hardly be charged with having seriously undermined the profit incentive of such corporate enterprise.

The figures so far quoted are averages. Table 69 presents the basic tax and profit data for 10 large manufacturing corporations for the 6-year period 1934-39, as taken from their registration statements on file with the Securities and Exchange Commission and from a special T. N. E. C. tax questionnaire. These figures merely under-score in specific instances what previous statistics have shown.

TABLE 69.—*Federal corporate income-tax payments of 10 large manufacturing corporations, 1934-39*

(Dollar figures in thousands)

Name of company and year	Rate of profit ¹	Net before Federal taxes	Federal corporate taxes		Undis-tributed profits	Total of (3), (4), (5)
			Normal ²	Capital stock		
	(1)	(2)	(3)	(4)	(5)	(6)
American Tobacco Co.:						
1934	10.57	\$26,629	\$2,429	\$277		\$2,706
1935	13.93	27,449	3,166	337		3,503
1936	12.13	23,525	3,341	479		3,820
1937	15.90	30,488	4,291	446		4,737
1938	15.81	30,036	4,600	288		4,888
1939	16.46	31,845				\$ 5,417

See footnotes on next page.

TABLE 69.—Federal corporate income-tax payments of 10 large manufacturing corporations, 1934-39—Continued

Name of company and year	Rate of profit	Net before Federal taxes	Federal corporate taxes		Undistributed profits	Total of (3), (4), (5)
			Normal	Capital stock		
	(1)	(2)	(3)	(4)	(5)	(6)
Chrysler Corporation:						
1934	11.40	\$11,382	\$1,847	\$145		\$1,992
1935	31.85	43,907	8,906	448		9,354
1936	51.25	76,111	12,760	918	\$1,200	14,878
1937	39.57	63,029	10,950	739	1,300	12,989
1938	13.59	22,498	3,665	292		3,957
1939	24.03	45,380				³ 8,500
Du Pont de Nemours & Co.:						
1934	9.80	51,519	4,820	423		5,243
1935	12.58	68,666	6,581	519		7,130
1936	17.20	101,659	9,627	718	2,148	12,493
1937	14.98	99,242	9,943	687	1,267	11,897
1938	8.32	56,144	5,950	619		6,569
1939	15.30	107,269				14,050
American Can Co.:						
1934	11.10	23,273	4,000	375		4,375
1935	9.73	20,110	2,800	274		3,074
1936	9.66	20,527	3,300	205		3,505
1937	12.48	22,228	4,300	249		4,549
1938	9.41	16,595	2,950	223		3,173
1939	12.11	22,385				4,100
General Motors Corporation:						
1934	11.61	110,181	12,787	874		13,661
1935	19.08	196,693	27,198	1,657		28,855
1936	26.04	282,190	36,925	2,801	2,395	42,121
1937	20.97	245,544	36,605	2,799	5,737	45,141
1938	10.54	130,190	20,565	1,890	2,470	24,925
1939	18.41	228,142				44,852
Inland Steel Co.:						
1934	7.18	4,302	572	51		623
1935	13.54	10,968	1,550	128		1,678
1936	16.22	15,019	1,820	167	374	2,361
1937	14.14	16,173	2,683	185	825	3,693
1938	5.41	6,037	1,121	155		1,276
1939	11.16	13,483				2,552
Phillips Petroleum Co.:						
1934	4.36	6,506	531	71		602
1935	9.56	14,678	1,256	116		1,372
1936	11.53	19,839	1,964	254		2,218
1937	14.49	26,208	2,094	208		2,302
1938	5.45	9,532	1,113	267		1,380
1939	5.89	11,026				1,193
Pittsburgh Plate Glass Co.:						
1934	6.78	6,819	1,014	81		1,095
1935	12.66	13,717	2,054	132		2,186
1936	16.33	18,771	2,889	177	263	3,329
1937	18.87	22,570	3,509	188	488	4,185
1938	6.47	8,033	1,257	130	51	1,438
1939	10.42	13,285				2,519
Procter & Gamble Co.:						
1934	17.24	22,238	2,986	162		3,148
1935	14.68	19,634	2,519	340		2,859
1936	22.02	32,623	4,697	357	593	5,647
1937	12.17	18,144	2,550	342	32	2,924
1938	19.86	31,818				6,418
1939	22.30	34,972				6,344
F. W. Woolworth Co.:						
1934	18.51	36,042	3,600	300		3,900
1935	17.22	34,722	3,020	455		3,475
1936	17.07	37,235	3,910	400	300	4,610
1937	16.56	37,517	3,725	405	210	4,340
1938	13.93	32,775	3,760	430		4,190
1939	14.36	33,145				3,835

¹ Net after all charges as percent of tangible net worth.² Includes the declared value excess profits tax.³ Provision for income taxes (as reported to Securities and Exchange Commission).

Source: 1934-38 tax figures in columns (3), (4), and (5) are taken from questionnaires filed by the companies with the Department of Commerce in connection with its studies of business taxation for the Temporary National Economic Committee. All other figures are from the Securities and Exchange Commission's Survey of American Listed Corporations.

Business Structure and Tax Policies.

Small business.—Small corporations were favored by the Federal revenue acts in existence between 1909–12, 1918–31, and 1936 to date, either by way of specific exemptions of net income (ranging from the first \$2,000–\$5,000) or by graduation of the rate structure.

The \$3,000 exemption of small corporations in 1931 reduced in a fluctuating degree the amount of the tax paid by various types of small corporations, from what it would have been without an exemption. In the case of manufacturing corporations with assets of less than \$50,000 it was pared down by some 300 percent.

The \$3,000 exemption was repealed in 1932, at the very bottom of the depression. An increase of substantial, and in several instances of drastic, dimensions in the effective Federal tax rates on small corporations resulted. The small manufacturing and trade corporations (those with assets of less than \$50,000) suffered a fivefold advance in rates, while the larger corporations met an increase of only 15 percent. In a word, it was the small corporation which bore the heaviest share of the rise in the Federal corporate taxes during the depression years.

During most of their life the corporate tax rates have been on a flat and not a graduated basis. This was in sharp contrast to the individual income tax which from its beginning under the sixteenth amendment was on a graduated basis.

During the World War a graduated excess profits tax was enacted. It fixed five income brackets with a sharply graduated rate structure ranging from 20 to 60 percent of the income in excess of the presumed norm of profit.

Taxes on corporate bigness met with no legislative encouragement previous to the decade of the thirties. Though the Senate introduced a graduated rate structure into the Revenue Act of 1924, its proposal was rejected by the House of Representatives. The first graduated tax on corporate profits was enacted in 1932. A slight discriminatory tax of three-fourths of 1 percent was levied (it was raised in 1933 to 1 percent) on those interaffiliated corporations which had chosen to make use of the consolidated returns device. Corporations of this description tended to be of the larger variety, and were so taxed to offset in some degree the undoubted advantages they enjoyed in making a consolidated tax return.

Corporate size emerged as a central problem of Federal tax reform during the discussion of the Revenue Act of 1935. In a special message to Congress on June 19, 1935, President Roosevelt directed attention to the favored position of the large corporations and recommended the enactment of a graduated corporate income tax. Before it could become effective, the 1935 act was replaced by the Revenue Act of 1936 with a graduated range from 7 to 15 percent.




In the Revenue Act of 1938 the graduated rates of the normal tax were relaxed in some measure. Corporations with net incomes in excess of \$25,000 paid a flat tax of 16½ percent, while corporations with lower incomes were made subject to a graduated tax from 12½ to 16 percent. This spread of 3½ percent was in contrast to the one of 7 percent (from 8 to 15 percent) prevailing for corporations of this category by virtue of the act of 1936. The second Revenue Act of 1940 broadened the spread from 14.85 to 24 percent, or slightly more than a 9 percent differential.

CHART XXVII

INTERLOCKING OPERATION OF FEDERAL CAPITAL STOCK TAX AND EXCESS-PROFITS TAX
UNDER THE REVENUE ACT OF 1936

EXCESS PROFITS AND CAPITAL STOCK TAXES ON
CORPORATIONS OF VARYING SIZE, 1933-37
(RETURNS WITH NET INCOME ONLY)
BY SIZE CLASSES

LEGEND

-  EXCESS-PROFITS TAX AS % OF CORPORATE PROFITS
-  EXCESS-PROFITS TAX AS % OF CORPORATE PROFITS LESS TAX EXEMPT DIVIDENDS AND GOVERNMENT INTEREST
-  ESTIMATED CAPITAL STOCK TAXES AS % OF CORPORATE PROFITS

ASSET SIZE CLASSES	
1	UNDER \$50,000
2	\$50,000 TO \$100,000
3	\$100,000 TO \$250,000
4	\$250,000 TO \$500,000
5	\$500,000 TO \$1,000,000
6	\$1,000,000 TO \$5,000,000
7	\$5,000,000 TO \$10,000,000
8	\$10,000,000 TO \$50,000,000
9	\$50,000,000 TO \$100,000,000
9A	OVER \$100,000,000
10	OVER \$100,000,000

3

2

1

0

1

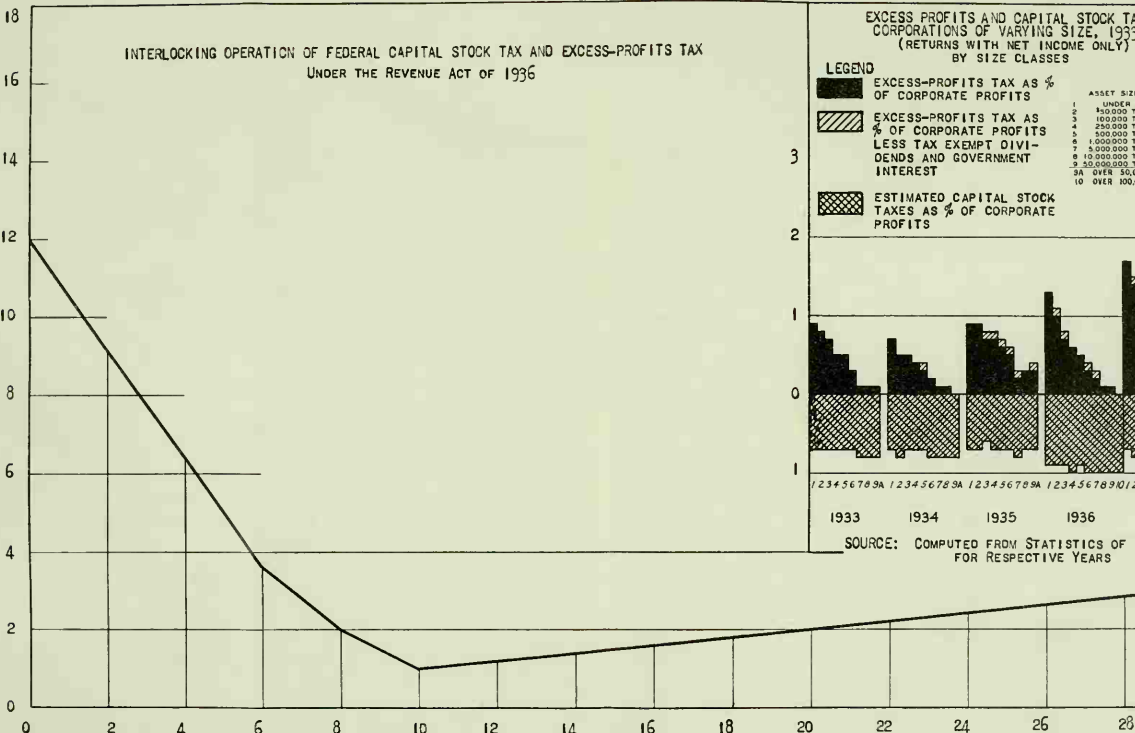
123456789A 123456789A 123456789A 12345678910 12345678910

1933 1934 1935 1936 1937

SOURCE: COMPUTED FROM STATISTICS OF INCOME FOR RESPECTIVE YEARS

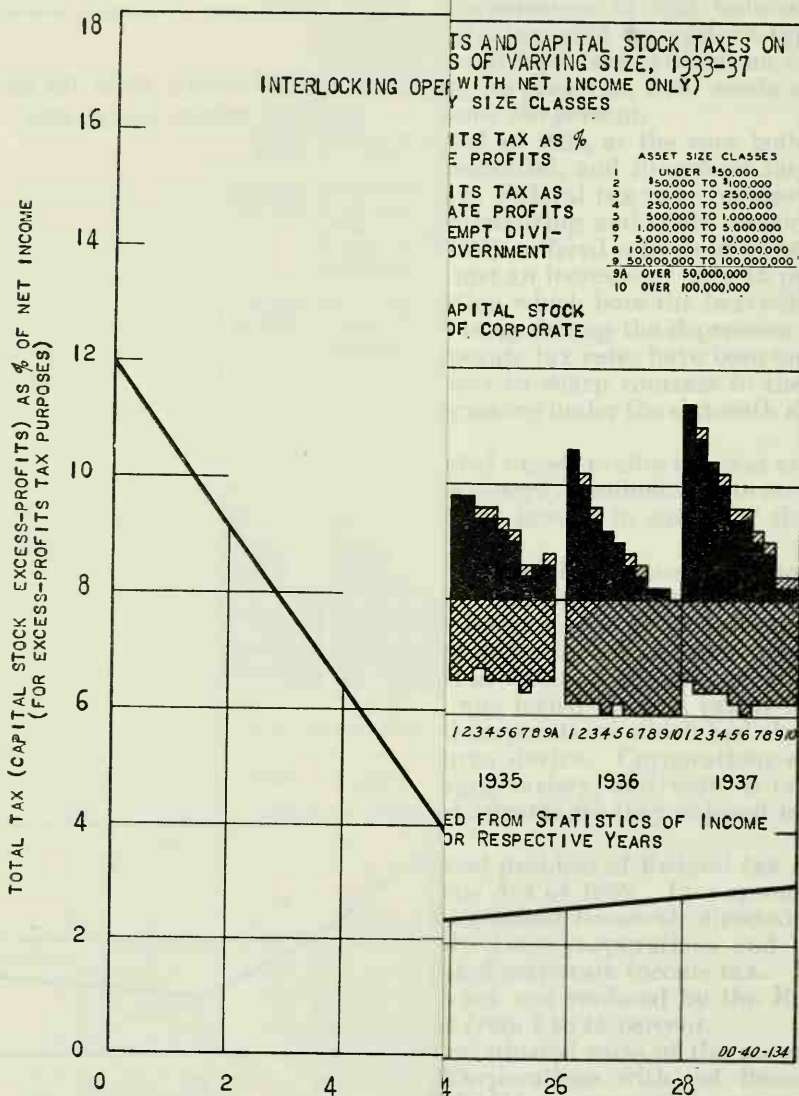
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TOTAL TAX (CAPITAL STOCK EXCESS-PROFITS) AS % OF NET INCOME
(FOR EXCESS-PROFITS TAX PURPOSES)



DEPARTMENT OF COMMERCE

DECLARED CAPITALIZATION TIMES NET INCOME (FOR EXCESS PROFITS TAX PURPOSES)



DEPARTMENT OF COMMERCE

The acts of 1938 and 1939 with their regressive normal tax rates might appear to favor the small corporation just as they had been favored previous to the year 1932. From the available tax returns for 1936-37, however, it would seem that the graduated tax rates have not been nearly so favorable to the small corporation as the \$3,000 exemption had previously been.

Fluctuation and stability.—Empirical studies have demonstrated that the profitableness of a corporation varies with its size as well as with the character of the industry. However, the small corporation may in any single year tend to show a higher rate of profit than the large one. The latter, in turn, yields a profit with a greater degree of frequency. In brief, the large corporation suffers large losses with infrequency; the small one leads a more uneven career with an occasional report of a large profit counterbalanced against reports of more frequent losses.

A corporation with a number of bad years and an occasional bright one is nevertheless taxed on all its profits in the year in which they are earned, while its losses are deducted in the years in which they are contracted. Hence, a corporation of this description is subject to a relatively higher tax rate than one whose profits are distributed over the years with greater evenness.

The various Federal revenue acts between 1918-32 permitted the deduction from current income of operating losses incurred in preceding years. The carryover period was of 1 year's duration between 1918-21, of 2 years' duration again in 1940. No carryover was permitted from 1933 to 1939, inclusive.

The declared value excess profits tax, which has been in effect since its enactment under the National Industrial Recovery Act of 1933, has fallen particularly heavily on small corporations. An excess profits tax in name alone, it is entirely dissimilar from its predecessor of the World War era; it has had no connection with monopoly profits.

The operations of the excess profits tax can be understood only together with that of the capital stock tax. The two taxes are a pair of Siamese twins, with the first serving as whipping boy to the second. The excess profits tax is payable by those corporations only which have made a miscalculation in the declaration of their capital stock for tax purposes.

In reporting its "declared capital," the corporation can set up whatever figure it chooses. The most favorable figure is one of 10 times the amount of the anticipated earnings for the year. (See chart XXVII.) The selection of a favorable capitalization figure will depend on the degree of accuracy with which the earnings figures have been predicted beforehand. This factor will fluctuate with the economic skill of the business management, the stability of the industry, and the good fortune of a given corporation in any single year.

The effective rate of the excess profits tax ranged in 1937 from 1.7 percent for corporations with assets of under \$50,000 to less than two-tenths of 1 percent for corporations with assets of over \$50,000,000. In brief, the smallest corporations paid an excess profits tax eight times greater in proportion than did the largest corporations, a disparity which was lessened to a relatively modest degree by the operations of the capital stock tax.

Dividend policy.—The undistributed profits tax was designed to (a) remove those tax inequalities which had arisen from the failure of corporations to distribute profits to their stockholders, who thereby in turn avoided surtax payments on their individual incomes and (b) reduce the amount of corporate savings which were having a tendency to circumscribe the capital market for new security issues.

It probably achieved both objectives in some degree, as well as acted as somewhat of a check on the operation of holding companies and other forms of intercorporate affiliation. In doing so its burden fell, however, with particular weight on corporations of small and medium size, since it gave no proper consideration to the length of the accounting period, the pressing debt structure of the individual concern, or the degree of access it had to the capital market. (See chart XXVIII.)

One of the objects of the undistributed profits tax was to curb the power of monopoly. However, the tax focused its exclusive attention on that portion of the corporate profits which remained undistributed and not on the relationship between profits and invested capital. The percentage of profits paid out in dividends tends to vary inversely with the rate of corporate profit. The greater the rate the smaller the percentage of distribution; the smaller the rate the greater the distribution. Hence a special tax on undistributed profits tends to act as a limited restriction on the rate of profit of a corporation rather than on its size.

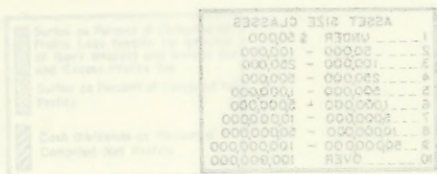
The undistributed profits tax is no solution to the monopoly problem in the case of the large corporation. If the latter is compelled by the tax to pay out its profits to the stockholders, the financing of its further growth can, without impediment, be carried out by recourse to the capital market. The corporation of middle size is frequently without ready access to the capital market and hence the undistributed profits tax in that case may well serve as a barricade to growth. In short, the operation of this tax does not curb existing monopolies, though it may serve to check the growth of new ones.

The undistributed profits tax was revised in the 1938 Revenue Act in the interest of small business. Corporations having a net income of less than \$25,000 were granted an exemption in full. In addition, the carry-over of the previous year's losses was recognized, and the noncash distribution of corporate profits (that is, consent dividends, etc.) was permitted on a broader scale. These improvements in the operation of the tax were nevertheless rendered ineffective by the emasculation of the rate-provisions, which served to defeat the very objectives of the tax itself. The Revenue Act of 1939 finally repealed the last remaining vestige of the undistributed profits tax. The problem of taxing undistributed profits is thus still unsolved.

Intercorporate relationships.—The holding company has had a recognized legal existence dating from the year 1888, when the State of New Jersey authorized the corporations which were chartered under its laws to become stockholders in other corporations. Prior to this the stock of corporations had been owned and controlled almost exclusively by natural persons.

Other State legislatures soon authorized the use of this new power so that by the first years of the thirties corporations had become owners of each other to no small degree. The most recent statistics (com-

AND MAJOR INDUSTRIES, 1967 (RETURNS WITH NET INCOME ONLY), TAXES ADDED



TAXES

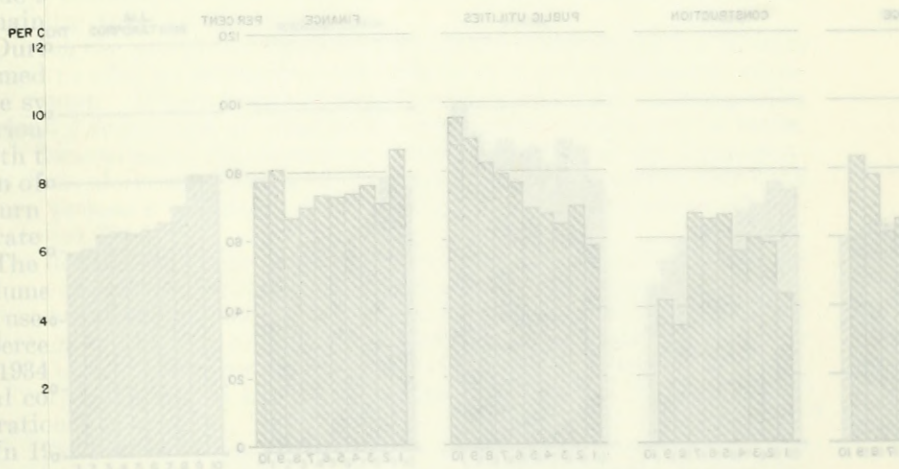
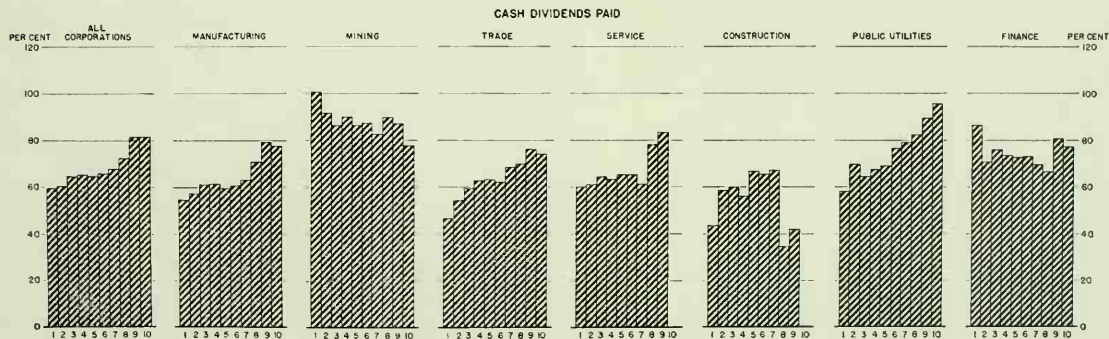
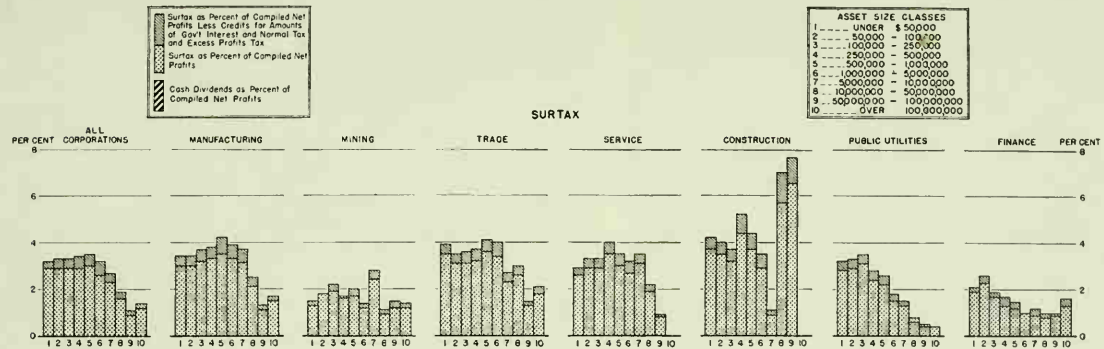


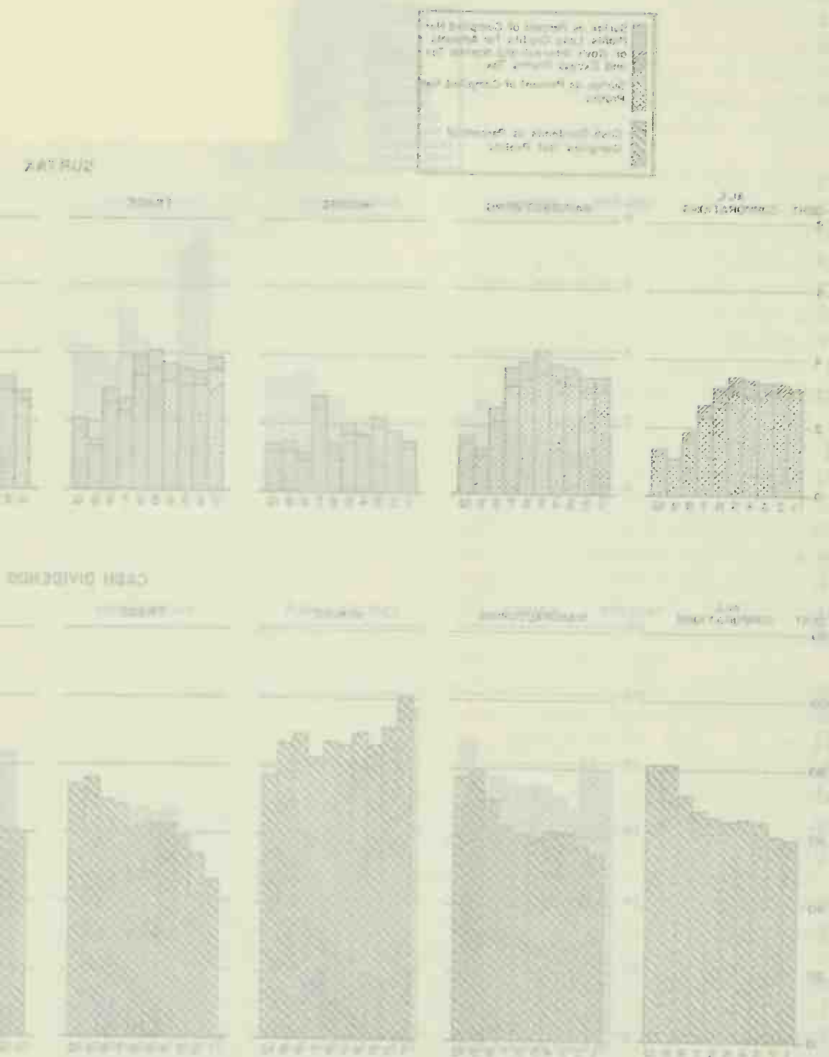
CHART XXVIII

FEDERAL SURTAX ON UNDISTRIBUTED PROFITS OF CORPORATIONS BY SIZE CLASSES AND MAJOR INDUSTRIES, 1937 (RETURNS WITH NET INCOME ONLY)



Source: Computed from the Sourcebook of the Statistical Section of the Bureau of Internal Revenue.
Department of Commerce.

FEDERAL SUBSIDY ON PHRENETICITY (PERCENT OF CONTRIBUTION BY NEW CLASS)



Source: Computed from the Yearbook of the United States of the Bureau of Internal Revenue.

Department of Commerce.

(This is a preliminary report.)

puted from "Statistics of Income") indicate that of all the cash dividends distributed by American corporations in 1934, 43.6 percent had been acquired in turn from the dividends of other corporations; the figure came to 50.7 percent in 1935, 36.5 percent in 1936, and 34.4 percent in 1937. It would appear from these data that from a third to one-half the earnings of corporate America are paid out to the other half or two-thirds of corporate America.

Intercorporate investments have grown in complexity as well as in magnitude. The stated purpose of the holding company was to hold the stock and control the policies "of two or more heretofore independent corporations" with a minimum of risk and investment. This method of industrial control has been described as "pyramidal," that is, the holding company rests at the peak of the pyramid, possessing a succession of small blocks of stock in the underlying members, over whose policies and activities it exercises the fullest power.

The Federal revenue acts prior to 1934-36 had granted corporations substantial and far reaching concessions which served to encourage the rise and growth of the interaffiliated system. They permitted the members of such a system to file consolidated tax returns in which the losses of one could be set off against the gains of the second. They also exempted from taxation the dividend income received by one domestic corporation from another.

The corporate entity was the basic and original industrial unit under the Federal income tax statutes. Particular cognizance was taken, however, of the interrelated ownership of corporate stock and the interlocking representation of common interests. The result was that in 1917 the members of interlocking corporate systems were required to file a consolidated Federal income tax return as though they composed a single legal economic entity. The mandatory requirement was made a permissive one in 1921 and retained this character during the remaining years of the twenties.

During the prosperity years of 1928-29 the consolidated tax returns seemed to offer no substantial tax benefits to the interaffiliated corporate system. Where losses of considerable proportions did not exist obviously deductions of considerable proportions could not be made. With the coming of the depression years, however, and the intensification of the downward swing of the business cycle, the consolidated tax return became a vehicle of great importance for the reduction of corporate tax liability.

The decrease in corporate income tax payments awakened a mighty volume of criticism which was leveled at the consolidated tax return. Its use was made subject to an additional income tax of three-fourths of 1 percent in 1932 and of 1 percent in 1933. It was repealed altogether in 1934 except for "common carrier by railroad." The unit of the Federal corporate income tax has once again become the individual corporation.

In 1936 the deduction of intercorporate dividends was restricted to 85 percent of those received. The act of 1936 permitted mutual investment trusts, however, to claim full credit for all dividends paid out but no credit for any dividends received. The partial taxation of dividend income has exerted a relatively slight effect upon the vast networks of affiliated corporations. The tax rates worked out in 1936 to an equivalent of 2.3 percent upon all dividends received

from domestic corporations to 2.5 percent in 1938 and to 2.7 percent in 1940. The mild consequences of these tax rates have not been any deterrent to the operation of holding companies and to related forms of interaffiliated corporations.

Equity financing.—Corporate activities may be financed by the sale of stocks or of bonds or after the corporation has been in existence for a time, out of undistributed profits and depreciation funds. The stockholder's contribution is conventionally labeled as "equity capital," the bondholder's as "creditor" capital. Though these various procedures for corporate financing may enjoy particular advantages over each other the equity method appears to be preferable.

The Federal tax laws have nevertheless displayed a preference toward creditor capital and a prejudice against equity capital. The deduction from the corporate tax of interest payments on bonds has been permitted on the ground that they represent authorized business expenses. This exemption applies to all interest payments, those on obligations contracted by the purchase of tax exempt securities alone being excepted. Interest payments are, it is true, taxable in the recipient's hands; yet dividend payments for that matter are equally taxable. Thus from the corporation's viewpoint a distribution in the form of interest is tax exempt while one in the form of dividends is taxable.

The present Federal statute was enacted during the war boom year of 1918. The deduction of interest payments previous to that period was limited to those on obligations which stood in a certain definite relationship to equity capital. The pros and cons of whether such deductions were to be authorized at all was a subject of lively controversy at the time of the enactment in 1909 of the first corporate excise tax. That statute consequently had tended to pursue a middle course. Though permitting the deduction of interest payments on the one side, it restricted its application on the other to a volume of bonds not to exceed in amount the sum of the paid-in in capital stock.

The Income Tax Act of 1913 granted a wider scope to this exemption. Deductions might now be made on a volume of obligations equal to one-half the sum of the corporation's interest bearing bonds and paid in capital stock. This restriction was further relaxed in 1916. In addition to the deductions under the 1913 act, a supplementary one was permitted on one-half of the remaining interest bearing bonds. The Revenue Act of 1918 removed the final reservations on the deduction of interest payments which has remained in effect to the present day.

The present preference of the Federal tax laws for creditor financing has served to favor public utility, financial and service corporations whose greatest reliance is on the bondholder and to discriminate against industrial corporations which as a class are more disposed to turn for their capital funds to the stockholder.

Monopoly profits.—The Second Revenue Act of 1940 represents a compromise between several contrasting varieties of excess profits taxes. The Treasury wanted a tax measured by invested capital while the Congress preferred a straight war profits tax applicable primarily to recent increases in profits.

The measure is not a good tax act, in the sense that it will raise a considerable revenue without substantial inequity. Nor is it a

"simple" measure readily understood. It is of the highest importance, nevertheless, that Congress has seen fit to resurrect the excess profits tax which had been defunct since 1921.

The current excess profits tax has fixed a graduated scale of rates ranging from 25 percent on excess profits of less than \$20,000 to 50 percent on those over \$500,000. It is a rate scale which varies more or less in direct proportion with the dollar magnitude of excess profits.

The excess profits provisions represent in principle the most direct attack yet made on corporate bigness in the history of Federal taxation. Nevertheless a number of jokers in the yardstick provisions for the measurement of excess profits may make the higher brackets of the rate structure of only academic interest to many corporations.

These "loopholes" include—

1. Amortization provisions (particularly if the high rate of the excess profits tax is repealed after 5 years).
2. The combination of the "income method" and the "invested capital" method, the taxpayer choosing whichever yardstick leads to the lower tax.
3. The absence of a ceiling provision in the "income" method.
4. The failure to make adjustments for capital reduction during the base period.
5. The special adjustments permitted for "abnormalities" in the computation of the starting point of the income subject to the excess profits tax.
6. The reintroduction of the permissive consolidated tax return.
7. The inclusion of borrowed capital in computing "invested capital."

The current excess profits tax will favor certain types of corporations in particular: (1) Corporations engaged in the production of strategic materials (e. g., tungsten, quicksilver, manganese, platinum, antimony, chromite, or tin), the income attributable to which is tax exempt; (2) corporations having mail or merchant marine contracts which are also exempt from the excess profits tax; (3) holding companies the investment income of which is tax exempt; (4) interaffiliated corporations which by the use of the consolidated tax return are enabled to offset the losses of one individual member against the profits of another; (5) monopolistic corporations with relatively high and stable earnings during recent years upon which the magnitude of the excess profits credit is based.

The current excess profits tax will also discriminate against certain types of corporations: (1) Corporations with relatively low earnings during recent years the excess profits credit of which is presumably limited to 8 percent of invested capital; (2) corporations in industries which have widely fluctuating profits, the net loss carryover of which is limited to 2 years; (3) corporations organized since 1936, the excess profits credit of which is limited to 8 percent of invested capital; (4) corporations with expanding capital. Under the income method this element is completely disregarded when occurring during the base period or limited to an 8 percent return when occurring during the taxable year. Under the invested capital method it is limited to a return of 8 percent.

Labor versus mechanization.—With a view to financing its recently enacted social security program, the Federal Government has imposed (a) a special unemployment security tax upon the pay rolls of all enterprises employing eight persons or more except certain classes specifically exempted by name. The tax was to be at the rate of 1 percent in 1936, 2 percent in 1937, and 3 percent in 1938 and thereafter; and (b) a special old age tax (1937) of 1 percent on the pay rolls of all enterprises which had not been specifically exempted without regard to the number of their employees. The first tax applied to total pay rolls while the second applied only to the first \$3,000 of the wages or salary of every employee, and excluded the pay rolls of individuals over 65.

Pay-roll taxes may vary with the size of the business enterprise because of (1) the inapplicability of the unemployment tax to enterprises with less than 8 workmen, (2) the exemption of entrepreneurial labor from the operation of the two pay-roll taxes, and (3) the exclusion from the tax base in the case of the old-age tax of all wages in excess of \$3,000. The first factor is clearly of importance to enterprises which, if sufficiently small, are wholly exempted from taxation. The second is probably of greater importance to small enterprises than to those of middle or large size, since the relative importance of the labor contribution of the entrepreneur diminishes at a rapid rate with the size of the enterprise. The third factor is presumably of the greatest importance to enterprises of middle or large size, since small enterprises are less likely to employ very many persons at wages or salaries in excess of \$3,000.

Yet the size patterns are not very pronounced except in a few industries where the variations in the pay-roll tax ratio may be due to a different factor altogether, a factor whose coincidence with the element of size is a matter of chance.

This factor is the relationship between the costs of labor and capital in various types of enterprises. It is in all probability the ingredient principally responsible for the variations in the pay-roll tax from industry to industry. To isolate this factor with greater clarity every corporation involved in the special box sample has been classified into one of six "labor cost" groups, ranging from cases with low labor costs (that is, with less than 10 percent of sales) to those with relatively high labor costs (that is, with more than 50 percent of sales). Data have been arranged in chart XXIX for 21 industries.

The ratio of the pay-roll tax to gross margin has fluctuated sharply with labor costs. The variation in manufacturing ranged in 1937 from 0.67 percent to 1.78 percent, while in trade it ranged from 0.91 percent to 1.94 percent. In short, the tax has fallen most heavily on those enterprises in which labor is a major cost item and most lightly on those enterprises which rely in great degree on mechanization (where pay rolls are low with respect to capital costs).

These data on manufacturing and trade corporations have failed, unfortunately, to indicate the full range of the variation in the magnitude of the pay-roll taxes since the data on corporations in other industries are unavailable for comparison. It is a reasonable assumption that the pay-roll tax in public utilities (other than transport)

CHART XXIX

FEDERAL-STATE PAYROLL TAX PAYMENTS AS PERCENT OF GROSS MARGIN, 697 LARGE MANUFACTURING AND TRADE CORPORATIONS BY LABOR COST CLASSES, 1937

LABOR COST CLASSES

(PAYROLLS AS PER CENT OF SALES)

1 = UNDER 10

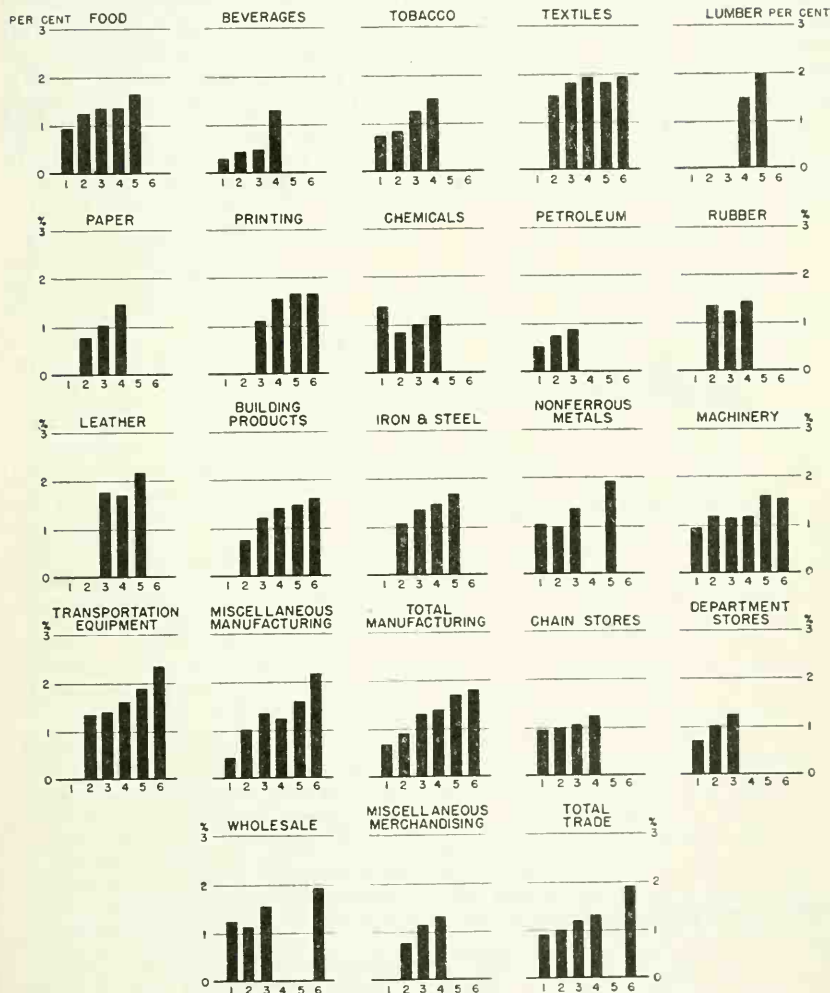
2 = 10 TO 20

3 = 20 TO 30

4 = 30 TO 40

5 = 40 TO 50

6 = OVER 50



Source: Department of Commerce Survey of Business Taxation.

is a relatively light one, since its labor costs are relatively low and its capital costs relatively high. In construction corporations, on the other hand, the pay-roll taxes are probably high since the labor-capital relationship is probably tilted upward in favor of the labor factor.

Enough data are available to indicate that the pay-roll tax has added to the costs of production in various industries in substantially different degrees according to their proportion of labor or of mechanization. The differential at present is relatively slight, but with the gradual increase in the pay-roll tax rates it may become of great significance in the relationship between labor and mechanization.

This conclusion must, of course, be understood in terms of the special purposes for which pay-roll taxes have been levied—old-age and employment security for industrial workers. The differential has arisen out of the selection of pay rolls as the tax base, but labor, as is well known, is only one among several cost factors. The security problems of which the solution or amelioration is to be obtained by the pay-roll taxes are by no means peculiar to those industries in which labor is employed in preference to machines.

TABLE 6.—*Alphabetical index of associations named as defendants*

DEFENDANT ASSOCIATION

- *Allegheny Container Association.
- Allied Cleaners & Dyers of Seattle.
- American Amusement Ticket Manufacturers Association.
- American Association of Wholesale Opticians.
- American Hardwood Manufacturers Association.
- *American Institute of Wholesale Plumbing and Heating Supply Associations.
- American Malleable Castings Association of Cleveland.
- *American Medical Association.
- *American Petroleum Institute.
- *American Potash Institute, Inc.
- *American Society of Composers, Authors, and Publishers.
- *American Surgical Trade Association.
- Appalachian Coals, Inc.
- Armstrong Bureau of Related Industries.
- Aroostook Potato Shippers Association.
- Asphalt Shingle & Roofing Institute.
- Associated Bill Posters.
- *Associated Marble Companies.
- *Associated Milk Dealers, Inc.
- *Associated Plumbing and Heating Merchants.
- Association of American Portland Cement Manufacturers.
- *The Association of American Railroads.
- *Association of Contracting Plumbers of the City of New York.
- *Association of Contracting Plumbers of the City of New York, Inc.
- Association of Retail Lumber Dealers.
- Automobile Bumper Association.
- Barbers Supply Dealers Association of America.
- Bolt, Nut, and Rivet Manufacturers Association.
- *Building Trades Employers' Association of the City of New York.
- *Broadcast Music, Inc.
- California Retail Hardware and Implement Association.
- California Wholesale Grocers Association.
- *Canton Master Plumbers Association.
- Cement Manufacturers Protective Association.
- *Central Supply Association.
- Chicago Association of Candy Jobbers.
- *Chicago Container Association.
- *Chicago Mantel and Tile Contractors Association.
- Chicago Master Steam Fitters' Association.
- *Cleveland Plumbing Contractors Association.
- Coal Dealers Association of California.
- Colorado and Wyoming Lumber Dealers Association.
- *Columbia Valley Lumbermen's Association.
- Columbus Confectioners' Association.
- *Commercial Fixture and Store Front Institute.
- *Contracting Lathing Association of Long Beach.
- *Contracting Plasterers' Association of Long Beach, Inc.
- *Contracting Plasterers Association of Southern California, Long Beach Chapter.
- Corn Derivatives Institute.
- Corrugated Paper Manufacturers Association, Inc.
- *Dade County Master Plumbers Association.
- *Detroit Association of Master Plumbers.

*Defendants in one or more cases since March 24, 1938.

- *Detroit Electrical Contractors Association.
- *Detroit Tile Contractors Association.
- Dress Creators' League of America.
- Eastern Soil Pipe Manufacturers Association.
- Eastern States Retail Lumber Dealers Association.
- Eighteen Carat Club.
- *Electrical Contractors' Association of Alameda and Contra Costa Counties, Inc.
- *Electrical Industry Depository of California, Inc.
- *Electrical Solderers Service Connector Institute.
- *Employing Plasterers Association of Allegheny County.
- *Engineering Survey & Audit Co., Inc.
- Evansville Confectioners Association.
- *Excavators Administrative Association, Inc.
- *Fair Practices Association.
- Fish Credit Association.
- Flower Producers Co-operative Association of New York, Inc.
- *Food Distributors Association.
- Fur Dressers and Fur Dyers Association.
- *Gasoline Pump Manufacturers Association.
- *Glass Container Association of America, Inc.
- *Glass Contractors' Association.
- *Glass Jobbers' Association of San Francisco and Oakland.
- *Greater Detroit Tile Contractors Association.
- Greater New York Live Poultry Chamber of Commerce.
- *Greensboro Plumbing & Heating Contractors, Inc.
- Gypsum Industries Association.
- Half-Size Dress Guild.
- *Harbor District Builders Supply Association.
- *Harbor District Chapter, National Electrical Contractors Association.
- *Harbor District Lumber Dealers Association.
- *Harbor Material Dealers', Inc.
- *Hardwood Floor Institute, Inc.
- *Harris County Medical Society.
- Hat Frame Manufacturers Protective Association.
- *Heating, Piping, and Air Conditioning Contractors Association of Southern California.
- *Heating, Piping, and Air Conditioning Contractors, New York City Association, Inc.
- *Ice Cream Manufacturers Association of Cook County.
- *Imperial Wood Stick Co.
- *Independent Refiners' Association of California, Inc.
- *The Intercoastal Lumber Distributors Association.
- *Institute of Carpet Manufacturers of America, Inc.
- *International Association of Ice Cream Manufacturers.
- *Jobbers' Credit Association, Inc.
- Joint Traffic Association.
- Kansas City Live Stock Exchange.
- *Kraft Paper Association.
- Live Poultry Dealers Protective Association, Inc.
- *Long Island Sand and Gravel Producers Association.
- *Lumber and Allied Products Institute, Inc.
- *Lumber Institute of Allegheny County.
- *Lumber Products Association, Inc.
- Maine Co-operative Sardine Co.
- *Manufacturers Clearing House of Illinois.
- Maple Flooring Manufacturers Association.
- *Marble Contractors Association.
- *Mason Contractors Association of the District of Columbia.
- *Master Builders Association.
- Master Horseshoers' National Protective Association of America.
- *Master Plasterers Association of San Francisco.
- *Master Plumbers Association of South Bend.
- *The Medical Society of the District of Columbia.
- *Michigan Container Association.
- *Middle Atlantic Container Association.

*Defendants in one or more cases since March 24, 1938.

- Mid-West Cement Credit and Statistical Bureau.
- Millinery Quality Guild, Inc.
- National Alliance of Furniture Manufacturers.
- National Association of Automobile Accessory Jobbers.
- National Association of Chair Manufacturers.
- *National Association of Commission Lumber Salesmen.
- National Association of Manufacturing Jewelers.
- National Association of Master Plumbers.
- *National Association of Master Plumbers of the United States.
- National Association of Retail Druggists.
- National Association of Window Glass Manufacturers.
- *National Container Association.
- *The National Fertilizer Association, Inc.
- National Hat Frame Association, Inc.
- *National Lumber Manufacturers Association.
- National Peanut Cleaners and Shellers Association.
- National Refrigerator Manufacturers Association.
- National Retail Credit Association.
- National Retail Monument Dealers' Association of America.
- National Terra Cotta Society.
- National Wholesale Jewelers' Association.
- *New Orleans Chapter, Associated General Contractors of America, Inc.
- *New Orleans, Louisiana Chapter of National Electrical Contractors Association.
- Newsprint Manufacturers Association.
- *New York Electrical Contractors Association, Inc.
- *New York State Association of Wholesalers of Plumbing and Heating Supplies.
- *New York State Container Association.
- Norcross Audit and Statistical Bureau.
- *Northwestern Container Association.
- Northwest Shoe Finders Credit Bureau.
- *Ohio Container Association.
- *Optical Wholesalers National Association, Inc.
- *Optical Wholesalers Association of New York, Inc.
- Oregon Wholesale Grocers' Association.
- *Pacific Coast Container Association.
- Pacific Coast Plumbing Association.
- Party Dress Guild, Inc.
- *Philadelphia Association of Wholesale Opticians.
- Philadelphia Jobbing Confectioners' Association.
- Philadelphia Tile Mantel and Grate Association.
- *Piedmont Container Association.
- *Pittsburgh Tile and Mantel Contractors Association.
- *Plumbing and Heating Industries Administrative Association, Inc.
- *Plumbing and Heating Wholesalers of New England, Inc.
- Poster Advertisers Association.
- Protective Fur Dressers Corporation.
- *Pure Milk Association.
- *Racine Master Plumbers Association.
- *Redwood Lunch Club.
- *San Francisco Electrical Contractors Association.
- *San Francisco Hardwood Floor Contractors Association.
- *Santa Barbara County Chapter, National Electrical Contractors Association.
- Seattle Produce Association.
- *Sheet Metal Association.
- Sheet Metal Ware Exchange.
- *Southeastern Container Association.
- *Southwestern Container Association.
- *Southwestern Woodwork Association.
- *Southern California Marble Association.
- Southern California Wholesale Grocers Association.
- Southern Hardware Jobbers' Association.
- *Southern Illinois Finnish Club.
- *Southern Pine Association.
- *Southern Wholesalers Association.
- Southern Wholesale Grocers' Association.

- Steamship Freight Brokers Association.
 *St. Louis Tile Contractors' Association.
 Sugar Institute, Inc.
 *Superphosphate Association, Inc.
 Textile Refinishers' Association, Inc.
 *Tile Contractors Association of America.
 Tile Manufacturers Credit Association.
 Traders' Livestock Exchange.
 Trans-Missouri Freight Association.
 *Union Painters Administrative Association, Inc.
 Utah-Idaho Wholesale Grocers Association.
 *Voluntary Code of the Heating, Piping and Air Conditioning Industry for Allegheny County, Pa.
 *Washington Academy of Surgery.
 *West Coast Lumbermen's Association.
 *Western Pennsylvania Sand and Gravel Association.
 *Western Pine Manufacturers Association.
 Western Red Cedar Association.
 Western Red Cedarman's Information Bureau.
 *Western Washington Wholesale Grocers Association.
 *Wholesale Distributors Association of Texas.
 *Willamette Valley Lumbermen's Association.
 Wire Goods Exchange.
 *Wood Products, Inc.
 Wool Institute, Inc.
 Woven Label Manufacturers Association.
 *Zone Seven Container Association.

TABLE 70.—*Taxes, consumer income, and savings, fiscal year 1939*

Income classes	Average income	Percent of income units	Percent of income paid in taxes			Percent of income saved
			Federal	State and local	Total	
Under \$500	\$346	17.0	7.9	14.0	21.9	-----
\$500 to \$1,000	847	29.5	6.6	11.4	18.0	-----
\$1,000 to \$1,500	1,381	22.1	6.4	10.9	17.3	5.2
\$1,500 to \$2,000	1,929	13.1	6.6	11.2	17.8	5.8
\$2,000 to \$3,000	2,689	11.3	6.4	11.1	17.5	9.6
\$3,000 to \$5,000	4,121	4.6	7.0	10.6	17.6	16.8
\$5,000 to \$10,000	7,741	1.5	8.4	9.5	17.9	28.4
\$10,000 to \$15,000	12,872	.4	14.9	10.6	25.5	32.3
\$15,000 to \$20,000	19,477	.2	19.8	11.9	31.7	32.3
\$20,000 and over	47,600	.3	27.2	10.6	37.8	38.3

Source: Estimates of Colm and Tarasov from TNEC Monograph No. 3, Who Pays the Taxes.

TABLE 71.—*Consumption taxes and consumer expenditures, fiscal year 1939*

Income classes	Average income	Percent of total income received	Percent of current consumption expense	Consumption tax as a percent of income
Under \$500	\$346	3.4	5.2	20.6
\$500 to \$1,000	847	14.5	17.8	17.1
\$1,000 to \$1,500	1,381	17.5	20.0	16.2
\$1,500 to \$2,000	1,929	14.6	16.4	16.4
\$2,000 to \$3,000	2,689	17.4	18.6	15.9
\$3,000 to \$5,000	4,121	11.1	10.5	14.2
\$5,000 to \$10,000	7,741	6.9	5.3	11.4
\$10,000 to \$15,000	12,872	3.2	1.9	9.0
\$15,000 to \$20,000	19,477	2.3	1.2	7.7
\$20,000 and over	47,600	9.1	3.1	5.2

Source: Estimates of Colm & Tarasov from TNEC Monograph No. 3, Who Pays the Taxes.

*Defendants in one or more cases since March 24, 1938.

TABLE 72.—Federal income tax and average dollar income of largest income recipients, 1926-37

	Federal tax as percent of economic income		Average dollar income of largest recipients	
	Highest 1 percent	Highest 1/100 of 1 percent	Before taxes	After taxes
1926.....	5.85	14.3	\$454,650	\$389,504
1927.....	6.28	14.4	502,785	430,323
1928.....	7.43	15.0	686,660	603,164
1929.....	6.62	14.0	702,620	604,505
1930.....	4.60	13.5	347,280	300,320
1931.....	3.18	12.1	215,430	189,291
1932.....	(1)	(1)	(1)	(1)
1933.....	(1)	(1)	(1)	(1)
1934.....	7.38	26.9	177,225	129,516
1935.....	8.43	29.9	197,595	138,415
1936.....	12.23	39.9	249,800	150,119
1937.....	11.39	37.8	241,165	150,039

¹ No data available.

Source: Compiled from Statistics of Income by Adolph Goldenthal; TNEC Monograph No. 4.

TABLE 73.—Number of returns and average dollar magnitude of estates before and after State and Federal taxes, by gross estate size classes, 1937

Gross estate classes	Average per return				
	Number of re- turns	Net estate ¹	State tax	Federal tax	Net estate after taxes ¹
40,000 to \$50,000.....	1,053	\$45,700	-----	\$100	\$45,600
\$50,000 to \$60,000.....	1,605	52,700	-----	200	52,500
\$60,000 to \$70,000.....	1,362	60,600	-----	500	60,100
\$70,000 to \$80,000.....	1,076	68,800	-----	900	67,900
\$80,000 to \$90,000.....	906	76,200	-----	1,300	74,900
\$90,000 to \$100,000.....	766	82,500	-----	1,800	80,700
\$100,000 to \$120,000.....	1,209	95,100	-----	2,900	92,200
\$120,000 to \$150,000.....	1,230	116,500	\$100	4,900	111,500
\$150,000 to \$200,000.....	1,178	151,400	400	8,400	142,600
\$200,000 to \$300,000.....	1,143	214,800	1,200	15,900	197,700
\$300,000 to \$500,000.....	812	337,600	3,700	30,300	303,600
\$500,000 to \$1,000,000.....	512	611,200	11,400	65,500	534,300
\$1,000,000 to \$2,000,000.....	236	1,294,300	40,700	169,900	1,083,700
\$2,000,000 to \$3,000,000.....	52	2,254,300	84,200	332,900	1,837,200
\$3,000,000 to \$5,000,000.....	42	3,469,200	178,200	592,000	2,699,000
\$5,000,000 to \$10,000,000.....	27	5,859,400	395,600	1,127,400	4,336,400
\$10,000,000 and over.....	11	20,081,500	1,536,600	3,801,300	14,743,600
Total.....	13,220	199,600	4,500	19,300	175,800

¹ Net estate is gross estate less debts.

TABLE 74.—*Distribution of net estates, by gross estate size classes, 1937*

[Percent of net estate]

Gross estate classes	Funeral and administrative expenses	Miscellaneous	Charitable bequests	Specific exemption ¹	State tax	Federal tax	To heirs and beneficiaries ¹
\$40,000 to \$50,000.....	5.0	0.3	0.2	87.5	-----	0.1	94.4
\$50,000 to \$60,000.....	5.7	.7	.4	75.9	-----	.4	92.8
\$60,000 to \$70,000.....	5.6	.9	.6	66.2	-----	.8	92.1
\$70,000 to \$80,000.....	5.6	1.4	.8	58.4	-----	1.3	90.9
\$80,000 to \$90,000.....	5.8	1.6	.7	52.6	-----	1.8	90.1
\$90,000 to \$100,000.....	5.8	2.6	1.1	44.5	-----	2.2	88.3
\$100,000 to \$120,000.....	5.7	2.4	1.3	42.2	-----	3.0	87.6
\$120,000 to \$150,000.....	5.8	2.9	1.6	34.6	0.1	4.2	85.5
\$150,000 to \$200,000.....	5.8	2.8	3.1	26.6	.2	5.9	82.2
\$200,000 to \$300,000.....	5.9	3.5	2.3	18.8	.6	7.9	79.8
\$300,000 to \$500,000.....	5.7	3.4	4.1	11.9	1.1	10.1	75.6
\$500,000 to \$1,000,000.....	5.9	3.6	4.6	6.6	1.9	12.6	71.4
\$1,000,000 to \$2,000,000.....	5.4	1.7	7.4	3.1	3.1	16.3	66.1
\$2,000,000 to \$3,000,000.....	5.0	.5	13.1	1.8	3.7	18.5	59.2
\$3,000,000 to \$5,000,000.....	4.8	2.8	7.3	1.2	5.1	22.2	57.8
\$5,000,000 to \$10,000,000.....	5.8	1.8	8.6	.7	6.8	26.0	51.0
\$10,000,000 and over.....	4.1	4.4	28.8	.2	7.7	26.6	28.4
Total.....	5.5	2.6	6.4	20.1	2.3	11.9	71.3

¹ "Specific exemption" is included in the column headed "To heirs and beneficiaries."

Source: Compiled from Statistics of Income for 1937, pt. 1.

TABLE 75.—*Effective Federal death tax rates, under various methods of transfer, 1940¹*

Net amount of property available for transfer	Entire transfer by estate	Entire transfer by gift	Equal division between estate and gift	Judicious division between estate and gift
	Percent	Percent	Percent	Percent
\$40,000.....	0.4	0.2	-----	-----
\$50,000.....	1.1	.6	-----	-----
\$60,000.....	2.8	1.6	-----	-----
\$80,000.....	4.6	2.8	0.3	0.3
\$100,000.....	8.3	5.1	1.8	1.7
\$150,000.....	10.9	6.9	3.7	3.4
\$200,000.....	14.2	8.9	6.7	6.1
\$300,000.....	16.1	10.2	8.9	7.8
\$400,000.....	19.0	11.8	11.5	9.9
\$600,000.....	21.2	13.0	13.2	11.4
\$800,000.....	23.2	14.0	14.4	12.5
\$1,000,000.....	27.1	16.0	16.7	14.6
\$1,500,000.....	29.9	17.4	18.6	16.2
\$2,000,000.....	34.3	19.3	21.6	18.2
\$3,000,000.....	38.2	20.8	23.6	19.8
\$4,000,000.....	45.1	23.2	26.8	22.6
\$6,000,000.....	50.3	25.2	29.5	24.6
\$8,000,000.....	54.3	26.8	32.0	25.8
\$10,000,000.....	60.8	29.3	37.0	28.5
\$15,000,000.....	64.0	30.9	40.5	30.3
\$20,000,000.....	68.0	32.5	45.1	32.0
\$30,000,000.....	69.9	33.4	47.5	33.1
\$40,000,000.....	72.1	34.4	50.2	34.1
\$60,000,000.....	73.3	34.9	51.7	34.7
\$80,000,000.....	74.1	35.2	52.6	35.1

¹ Before allowance of credit for State death taxes (including defense taxes imposed by the Revenue Act of 1940).

Source: Treasury Department, Division of Tax Research.

TABLE 76.—*Surtax rates on individual incomes under the various revenue acts applying from 1913 to 1940*

[Percent of that portion of income within the magnitudes indicated]

Net income ¹		Rate applicable to incomes for—										
Exceeding	Not exceeding	1913 to 1915	1916	1917	1918 to 1921	1922 and 1923 ²	1924	1925 to 1931	1932 and 1933	1934 and 1935	1936 to 1939	1940
\$4,000	\$5,000			1	1					4	4	4
\$5,000	\$6,000			1	2	1			1	5	5	6
\$6,000	\$7,500			2	2	1			1	5	5	6
\$7,500	\$8,000			2	3	1			1	6	6	8
\$8,000	\$10,000			3	4	2	1	1	2	7	7	10
\$10,000	\$12,000			3	5	3	1	1	3	8	8	12
\$12,000	\$12,500			4	5	3	1	1	3	8	8	12
\$12,500	\$13,000			4	5	3	1	1	3	8	8	12
\$13,000	\$14,000			4	6	4	2	2	4	9	9	15
\$14,000	\$15,000			5	6	4	2	2	4	9	9	15
\$15,000	\$16,000			5	7	5	3	3	5	11	11	18
\$16,000	\$18,000			5	8	6	4	4	6	13	13	21
\$18,000	\$20,000			8	9	8	5	5	8	15	15	24
\$20,000	\$22,000	1	1	8	10	9	6	6	9	17	17	27
\$22,000	\$24,000	1	1	8	11	10	7	7	10	17	17	27
\$24,000	\$26,000	1	1	8	12	11	8	7	11	19	19	30
\$26,000	\$28,000	1	1	8	13	12	9	8	12	19	19	30
\$28,000	\$30,000	1	1	8	14	13	10	8	13	21	21	33
\$30,000	\$32,000	1	1	8	15	15	10	9	15	21	21	33
\$32,000	\$34,000	1	1	8	16	15	11	9	15	21	21	33
\$34,000	\$36,000	1	1	8	17	16	12	10	16	21	21	33
\$36,000	\$38,000	1	1	8	18	17	13	10	17	24	24	36
\$38,000	\$40,000	1	1	8	19	18	13	11	18	24	24	36
\$40,000	\$42,000	1	2	12	20	19	14	11	19	24	24	36
\$42,000	\$44,000	1	2	12	21	20	15	12	20	27	27	40
\$44,000	\$46,000	1	2	12	22	21	16	12	21	27	27	40
\$46,000	\$48,000	1	2	12	23	22	17	13	22	27	27	40
\$48,000	\$50,000	2	2	12	24	23	18	13	23	30	31	44
\$50,000	\$52,000	2	2	12	25	24	19	14	24	30	31	44
\$52,000	\$54,000	2	2	12	26	25	19	14	25	30	31	44
\$54,000	\$56,000	2	2	12	27	26	20	15	26	33	35	44
\$56,000	\$58,000	2	2	12	28	27	21	15	27	33	35	44
\$58,000	\$60,000	2	3	17	29	28	21	16	28	33	35	47
\$60,000	\$62,000	2	3	17	30	29	22	16	29	36	39	47
\$62,000	\$64,000	2	3	17	31	30	23	17	30	36	39	47
\$64,000	\$66,000	2	3	17	32	31	24	17	31	36	39	47
\$66,000	\$68,000	2	3	17	33	32	25	17	32	39	43	47
\$68,000	\$70,000	2	3	17	34	33	26	18	33	39	43	50
\$70,000	\$72,000	2	3	17	35	34	26	18	34	39	43	50
\$72,000	\$74,000	2	3	17	36	35	27	18	35	42	47	50
\$74,000	\$75,000	3	3	17	36	35	27	18	35	42	47	50
\$75,000	\$76,000	3	3	17	37	36	28	18	36	42	47	50
\$76,000	\$78,000	3	3	17	38	37	28	18	37	42	47	50
\$78,000	\$80,000	3	4	22	39	38	29	19	38	45	51	53
\$80,000	\$82,000	3	4	22	40	39	30	19	39	45	51	53
\$82,000	\$84,000	3	4	22	41	40	31	19	40	45	51	53
\$84,000	\$86,000	3	4	22	42	41	31	19	41	45	51	53
\$86,000	\$88,000	3	4	22	43	42	32	19	42	45	51	53
\$88,000	\$90,000	3	4	22	44	43	33	19	43	50	55	56
\$90,000	\$92,000	3	4	22	45	44	34	19	44	50	55	56
\$92,000	\$94,000	3	4	22	46	45	35	19	45	50	55	56
\$94,000	\$96,000	3	4	22	47	46	36	19	46	50	55	56
\$96,000	\$98,000	3	4	22	48	47	36	19	47	50	55	56
\$98,000	\$100,000	4	5	27	52	48	37	20	48	52	58	60
\$100,000	\$150,000	4	6	31	56	49	37	20	49	53	60	60
\$150,000	\$200,000	4	7	37	60	50	38	20	50	54	62	62
\$200,000	\$250,000	5	8	42	60	50	38	20	50	54	64	64
\$250,000	\$300,000	5	9	46	63	50	39	20	51	55	66	66
\$300,000	\$400,000	5	9	46	63	50	39	20	52	56	68	68
\$400,000	\$500,000	6	10	50	64	50	40	20	53	57	70	70
\$500,000	\$750,000	6	10	55	64	50	40	20	54	58	72	72
\$750,000	\$1,000,000	6	11	61	65	50	40	20	55	59	73	73
\$1,000,000	\$1,500,000	6	12	62	65	50	40	20	55	59	73	73
\$1,500,000	\$2,000,000	6	13	63	65	50	40	20	55	59	74	74
\$2,000,000	\$5,000,000 and over.	6	13	63	65	50	40	20	55	59	75	75

¹ In arriving at the net income subject to surtax for 1934 and subsequent years, the sum of the personal exemption and credit for dependents is allowed as a credit; prior to 1934 no such credit was allowed.

² Tax for 1923 reduced 25 percent by credit or refund under sec. 1200 (a), Revenue Act of 1924.

Source: "Sources and Rates of Federal Taxation," corrected to Jan. 1, 1939, U. S. Government Printing Office 1939; supplemented by rates from current statute.

TABLE 77.—Federal estate tax rates, 1916-40

[Percent of net estate, before specific exemption, that is within the magnitudes indicated]¹

Net estate before specific exemption		Effective date—approximate								
Exceeding	Not exceeding	1916	1917	1918	1919 to 1925	1926 to 1931	1932 to 1934	1935	1936 to 1939	1940
\$40,000	\$40,000	0	0	0	0	0	0	0	0	0
\$50,000	50,000	0	0	0	0	0	0	0	2	2.2
\$60,000	60,000	1	1.5	2	1	0	1	1	4	4.4
\$70,000	70,000	1	1.5	2	1	0	2	2	6	6.6
\$80,000	80,000	1	1.5	2	1	0	3	3	8	8.8
\$90,000	90,000	1	1.5	2	1	0	4	4	10	11.0
\$100,000	100,000	1	1.5	2	1	0	5	5	12	13.2
\$110,000	110,000	2	3	4	2	1	7	7	12	13.2
\$120,000	120,000	2	3	4	2	1	7	7	14	15.4
\$130,000	130,000	2	3	4	2	1	7	9	14	15.4
\$140,000	140,000	2	3	4	2	1	7	9	17	18.7
\$150,000	150,000	2	3	4	2	2	9	12	17	18.7
\$200,000	200,000	2	3	4	2	3	9	12	17	18.7
\$250,000	250,000	3	4.5	6	3	3	9	12	20	22.0
\$300,000	300,000	3	4.5	6	3	3	11	16	20	22.0
\$400,000	400,000	4	6	8	4	4	11	16	20	22.0
\$450,000	450,000	4	6	8	4	4	11	16	23	25.3
\$500,000	500,000	4	6	8	4	4	13	19	23	25.3
\$600,000	600,000	5	7.5	10	6	5	13	19	23	25.3
\$700,000	700,000	5	7.5	10	6	5	15	22	26	28.6
\$800,000	800,000	5	7.5	10	6	6	15	22	26	28.6
\$900,000	900,000	5	7.5	10	8	6	15	25	29	31.9
\$1,000,000	1,000,000	5	7.5	10	8	6	17	25	29	31.9
\$1,040,000	1,040,000	5	7.5	10	8	7	17	25	32	34.2
\$1,080,000	1,080,000	6	9	12	10	7	19	28	32	34.2
\$1,120,000	1,120,000	6	9	12	10	8	19	28	32	34.2
\$1,160,000	1,160,000	6	9	12	10	8	19	28	35	38.5
\$1,200,000	1,200,000	6	9	12	12	8	21	31	35	38.5
\$1,240,000	1,240,000	6	9	12	12	9	21	31	35	38.5
\$1,280,000	1,280,000	6	9	12	12	9	21	31	38	41.8
\$1,320,000	1,320,000	7	10.5	14	14	9	23	34	38	41.8
\$1,360,000	1,360,000	7	10.5	14	14	10	23	34	41	45.1
\$1,400,000	1,400,000	7	10.5	14	14	10	25	37	41	45.1
\$1,440,000	1,440,000	7	10.5	14	14	11	25	37	41	45.1
\$1,480,000	1,480,000	7	10.5	14	14	11	25	37	44	48.4
\$1,520,000	1,520,000	8	12	16	16	11	27	40	44	48.4
\$1,560,000	1,560,000	8	12	16	16	12	27	40	44	48.4
\$1,600,000	1,600,000	8	12	16	16	12	27	40	47	51.7
\$1,640,000	1,640,000	8	12	16	16	12	29	43	47	51.7
\$1,680,000	1,680,000	8	12	16	16	13	29	43	50	55
\$1,720,000	1,720,000	8	12	16	16	13	31	46	50	55
\$1,760,000	1,760,000	9	13.5	18	18	14	31	46	50	55
\$1,800,000	1,800,000	9	13.5	18	18	14	31	46	53	58.3
\$1,840,000	1,840,000	9	13.5	18	18	14	33	48	53	58.3
\$1,880,000	1,880,000	9	13.5	18	18	14	33	48	56	61.6
\$1,920,000	1,920,000	10	15	20	20	14	35	50	56	61.6
\$1,960,000	1,960,000	10	15	20	20	15	35	50	59	64.9
\$2,000,000	2,000,000	10	15	20	20	15	37	52	59	64.9
\$2,040,000	2,040,000	10	15	20	20	16	37	52	61	67.1
\$2,080,000	2,080,000	10	15	20	20	16	39	54	61	67.1
\$2,120,000	2,120,000	10	15	20	20	17	39	54	61	67.1
\$2,160,000	2,160,000	10	15	20	20	17	39	54	63	69.3
\$2,200,000	2,200,000	10	15	22	22	17	41	56	63	69.3
\$2,240,000	2,240,000	10	15	22	22	18	41	56	63	69.3
\$2,280,000	2,280,000	10	15	22	22	18	41	56	65	71.5
\$2,320,000	2,320,000	10	15	22	22	18	43	58	65	71.5
\$2,360,000	2,360,000	10	15	22	22	19	43	58	67	73.7
\$2,400,000	2,400,000	10	15	25	25	19	45	60	67	73.7
\$2,440,000	2,440,000	10	15	25	25	20	45	60	67	73.7
\$2,480,000	2,480,000	10	15	25	25	20	45	60	69	75.9
\$2,520,000	2,520,000	10	15	25	25	20	45	60	70	77

¹ Net estate is gross estate less debts, funeral expenses, charitable bequests etc.

Source: Sources and Rates of Federal Taxation, corrected to Jan. 1, 1939, U. S. Government Printing Office, 1939; supplemented by current statute.

NOTE.—1940 rates are 1936-39 rates plus 10 percent defense tax.

TABLE 78.—Number of taxable returns and effective tax rate on individual incomes, by income size classes, for returns with alternative tax (on capital gains), returns with no alternative tax, and for all taxable returns,¹ 1938

[Total tax as a percent of net income]

Net income classes	Number of taxable returns			Effective rate, percent		
	Alternative	No alternative	All returns	Alternative	No alternative	All returns
Deficit.....	26	0	26	(2)	—	(3)
\$000 to \$1,000 ²	—	50,502	50,502	—	3.13	3.13
\$1,000 to \$2,000 ²	—	1,191,970	1,191,970	—	.87	.87
\$2,000 to \$2,500 ²	1	208,449	208,450	354.71	1.68	1.69
\$2,500 to \$3,000 ²	2	208,057	208,059	644.06	1.03	1.03
\$3,000 to \$4,000 ²	1	498,523	498,524	925.82	.93	.93
\$4,000 to \$5,000 ²	2	299,258	299,260	919.65	1.33	1.34
\$5,000 to \$6,000.....	7	164,495	164,502	44.31	1.80	1.80
\$6,000 to \$7,000.....	—	102,956	102,956	—	2.25	2.25
\$7,000 to \$8,000.....	—	66,758	66,758	—	2.81	2.81
\$8,000 to \$9,000.....	3	46,223	46,226	125.32	3.43	3.44
\$9,000 to \$10,000.....	3	34,485	34,488	75.78	3.99	3.99
\$10,000 to \$11,000.....	5	25,917	25,922	38.14	4.48	4.49
\$11,000 to \$12,000.....	4	20,573	20,577	5.27	4.94	4.94
\$12,000 to \$13,000.....	7	16,559	16,566	5.64	5.34	5.34
\$13,000 to \$14,000.....	5	13,474	13,479	97.80	5.72	5.76
\$14,000 to \$15,000.....	—	11,346	11,346	—	6.11	6.11
\$15,000 to \$20,000.....	30	35,002	35,032	34.25	7.10	7.13
\$20,000 to \$25,000.....	40	17,819	17,859	18.07	9.01	9.03
\$25,000-\$30,000.....	60	10,147	10,207	16.91	11.04	11.07
\$30,000-\$40,000.....	162	10,652	10,814	19.65	13.47	13.56
\$40,000-\$50,000.....	892	4,423	5,315	18.52	16.26	16.66
\$50,000-\$60,000.....	1,294	1,649	2,943	20.63	19.15	19.80
\$60,000-\$70,000.....	918	857	1,775	23.58	22.10	22.87
\$70,000-\$80,000.....	600	541	1,144	26.35	21.96	25.69
\$80,000-\$90,000.....	522	319	841	29.00	28.23	28.71
\$90,000-\$100,000.....	354	202	556	31.46	31.23	31.37
\$100,000-\$150,000.....	928	398	1,326	36.63	37.06	36.75
\$150,000-\$200,000.....	323	97	420	41.78	45.25	42.58
\$200,000-\$250,000.....	190	39	229	46.00	49.50	46.59
\$250,000-\$300,000.....	97	20	117	47.02	52.61	47.96
\$300,000-\$400,000.....	109	33	142	49.02	56.41	50.74
\$400,000-\$500,000.....	53	12	65	48.79	59.71	50.84
\$500,000-\$750,000.....	74	7	81	51.58	63.86	52.72
\$750,000-\$1,000,000.....	31	6	37	47.81	67.02	50.99
\$1,000,000-\$1,500,000.....	28	2	30	43.72	70.30	45.64
\$1,500,000-\$2,000,000.....	15	1	16	47.14	71.68	48.66
\$2,000,000-\$3,000,000.....	5	1	6	38.65	72.67	43.20
\$3,000,000-\$4,000,000.....	1	—	1	72.67	—	72.67
\$4,000,000-\$5,000,000.....	1	—	1	37.61	—	37.61
\$5,000,000 and over.....	3	—	3	30.56	—	30.56
Total taxable returns.....	6,796	3,041,775	3,048,571	36.08	4.09	6.04

¹ Includes fiduciary returns.

² Estimated.

³ Imaginary (negative) rate; net-income deficit.

Source: Treasury Department press release of Aug. 7, 1940.

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